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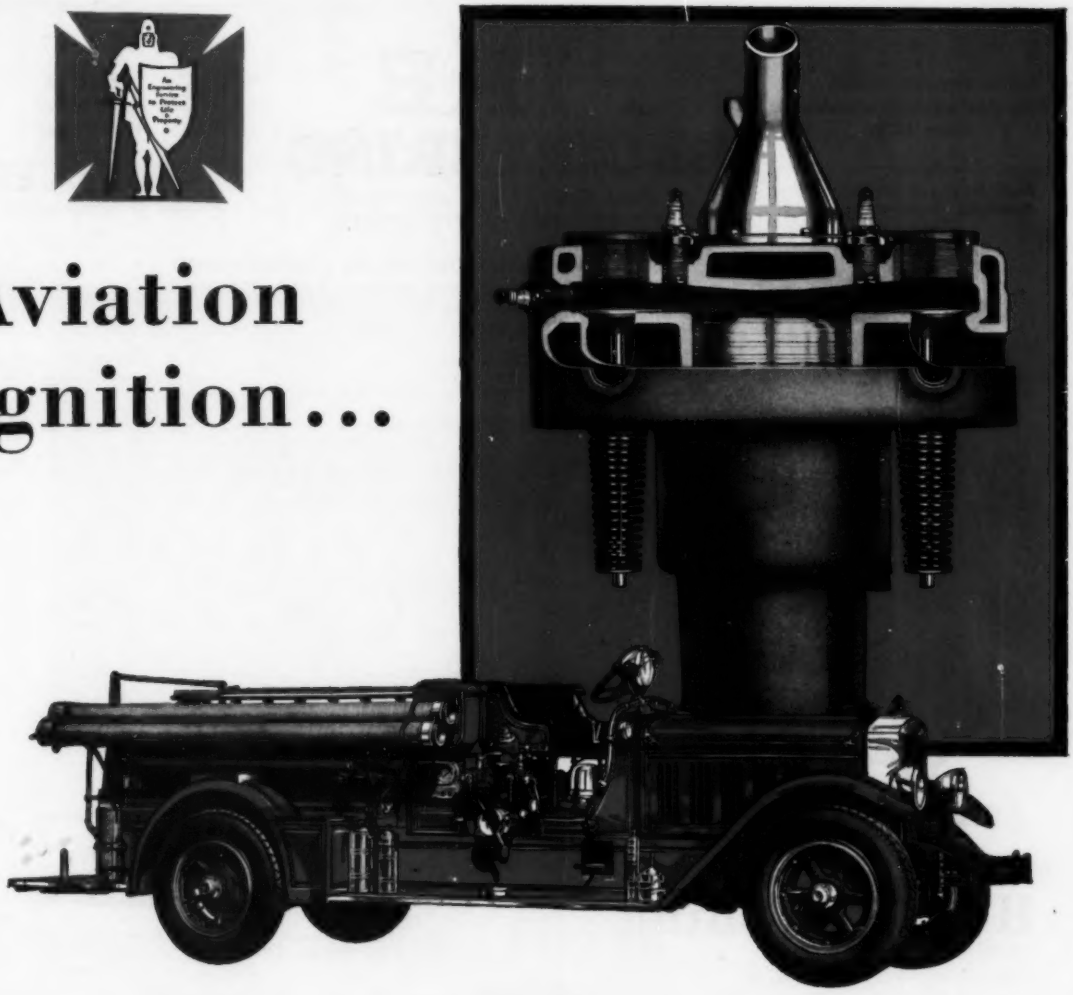

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Published Every-Other Wednesday

SUBSCRIPTION PRICE
U. S. and Canada $3 a year; Foreign $4; Single copies 25c

Issued by CASE-SHEPPERD-MANN PUBLISHING CORPORATION
Also publishers of "Water Works Engineering," "Municipal Sanitation," Technical Books, etc.

24 West 40th Street, New York City
Western Office, 30 No. Michigan Ave., Chicago

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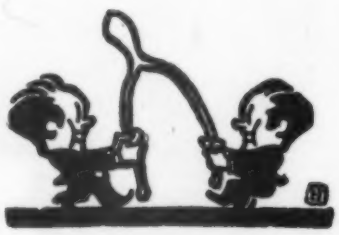

Here's Wishing

all our good friends in the fire service, a New Year filled with all the things that make life worth-while.

Let's live and let live!

The Publishers

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Contents of this issue copyrighted, 1930, by the Case-Shepperd-Mann Publishing Corp., 24 West 40th St., New York City.
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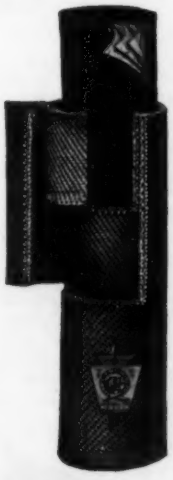

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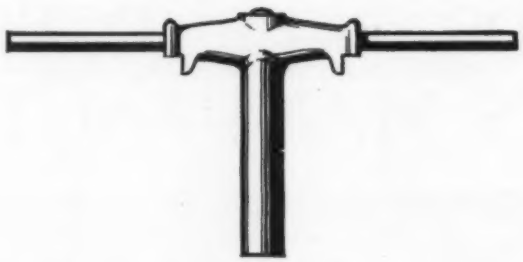

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The Journal of the Fire Protection Profession

VOLUME LXXXIII DECEMBER 24, 1930 NUMBER 26

The Courts Have Final Say in Matter of Public Concern

Some Recent Higher Court Decisions Regulating the Authority of City and State Officers—Use of Mandamus Writ—Purpose of Laws

By LEO T. PARKER, Attorney-at-Law

THE writ of mandamus is most frequently used to compel the performance of some ministerial duty on the part of a public officer, board, or commission. If the performance of the duty involves the exercise of discretion or judgment, the writ will not be issued except in cases where there has been an abuse of discretion.

There are precedents, also, for the use of this writ to compel the passage of an ordinance by a city council, in cases where the duty to do so is clearly imposed and the terms of the ordinance are indicated by a state law imposing the duty with sufficient definiteness to make compliance therewith practically a ministerial act.

In the absence of plain intent of the Legislature, when passing a law directing a city council, an honest difference of opinion may arise between the common council and the board of aldermen. The rule is particularly applicable with respect to duties of the officials and branches of a city fire department.

For example, one body might desire to have one platoon serve exclusively on night duty, and the other body be of the opinion that the two platoons should alternate on day and night duty. Moreover, it is conceivable that other differences of opinion as to the best method of establishing this system might arise. Therefore, state laws which are intended to regulate the conduction of a municipal Fire Department must be positively plain in intent, otherwise a writ of mandamus will not be issued to compel the officials to abide by the law.

SUBJECTS TREATED IN THIS ARTICLE

What is a Writ of Mandamus?
Right of Police Commissioner to Regulate Traffic
Authority of Commissioner to Spend Money
Validity of Sales Contracts Made by Municipal Officials
Purchase of Equipment Held Void
Laws Regulating Purchases
Only Taxpayer May Sue to Prevent Municipal Expenditures
Purposes of Restrictive Laws
Liability of Municipality for Acts of Officers
Fire Marshal Has Broad Authority to Revoke Building Permits

For illustration, in McLyman vs. Holt, 151 Atl. 1, certain citizens filed suit to compel the mayor, council, board of aldermen and committee of a municipal Fire Department to establish a two-platoon system, to make rules and regulations governing the same, to appropriate such sums of money, to take such further action and to pass such ordinances as may be necessary to carry out the provisions of a state law. This law provided:

"The city of Pawtucket shall establish a two platoon system in the fire department . . . The joint standing committee on fire department of the city council of the city of Pawtucket shall make rules and regulations governing the said two platoon system."

The officials refused to establish a two platoon system and suit was filed requesting the Court to grant a writ of mandamus to compel the mayor, council, and other officials to follow the law and establish a two platoon system. In refusing to do so the Court said:

"Is the act in question mandatory in intent so as to warrant the issuance of a writ of mandamus to enforce compliance therewith? There is nothing in the title of the act to indicate such intent. On the contrary, the act, so far as appears from the title, is merely permissive. The form of the question in the referendum gives support to this view. In voting 'Yes' or 'No' to the question 'Shall the act passed by the general assembly at its January session, A. D. 1924, authorizing the city of Pawtucket to establish a two platoon system for the fire department in said city, be accepted?' the electors certainly could not have thought that they were accepting an act which would compel the city council to establish forthwith a two-platoon system in the Fire Department. . . . The contention that the act is mandatory rests upon the use of the word 'shall.' . . . The word 'may' is sometimes construed, when the context requires it, to mean 'shall' and, conversely, the word 'shall' is sometimes the equivalent of 'may.'"

Right of Police Commissioner to Regulate Traffic

It is well established that a Legislature may pass laws which delegate power to municipal officials to make and enforce traffic regulations. It is necessary, however, that this authority given is unmistakenable.

For instance, in Cherubino vs. Meenan, 171 N. E. 708, the question was presented to the higher Court whether a municipal Police Commissioner may make a valid traffic regulation, as follows:

"Pedestrians, where no Police Officer is present and no traffic light control system is in operation, shall have the right of way on crossings and vehicles must slow down and stop, if necessary, to permit pedestrians on crossings to pass."

It was shown that by the state laws the Police Department is empowered to

"regulate, direct, control, restrict and direct the movement of all teams, horses, carts, wagons, automobiles and all other vehicles in streets, bridges, squares, parks and public places, for the facilitation of traffic and the convenience of the public as well as the proper protection of human life and health, and to that end the police commissioner shall make

such rules and regulations for the conduct of vehicular traffic in the use of the public streets, squares and avenues as he may deem necessary."

Therefore, in view of this law the Court held the regulation valid and enforceable, saying:

"That the Legislature may confer such power upon municipal authorities is well established. . . . And that this power may be conferred upon a department of a city government, as well as given to its legislative assembly, is also recognized . . . Any interpretation of this traffic regulation which would require all vehicles to slow down or stop every time a person was on any part of a street crossing would jam traffic and be unreasonable. . . . At common law it was equally the duty of an approaching automobilist to slow down and stop, if necessary, to permit pedestrians on crossings to pass. . . . This rule in question was therefore within the powers conferred upon the police commissioner. It is not unreasonable if rightly interpreted and applied; neither is it such a radical change in a common-law right as to require an act of the legislature and not an ordinance."

Authority of Commission to Spend Money

Generally speaking, a board of commissioners derives its authority to spend money, employ help, and the like, from state laws. Therefore, the legal interpretation of such laws is important. Usually, the Court, in construing laws of this nature, endeavors to interpret the intended meaning of the law-making body which enacted the statute.

For example, in the late case of State vs. Beach, 28 S. W. (2d) 105, the legal meaning of a state statute was adjudicated which provided that

"the board of commissioners shall provide itself with a secretary and assistant secretary and such clerks and other help as may be necessary for the transaction of its business, and shall have power to divide the city into districts and furnish all the necessary materials and provisions for a perfect and complete organization and equipment of the force and department of the city."

Litigation developed when the board of commissioners, by authority of this law, employed help in various municipal districts. The city manager and council argued that the above law only authorizes help at the office of the board and that the board was not authorized by the law to employ and pay for permanent and temporary employes in all needed branches of the department.

It is interesting to observe that the higher Court held this law authorized the board to employ all the available help needed to operate the department on an efficient basis. This Court said:

"We think such help is authorized by the direction to the board to provide itself with 'such clerks and other help as may be necessary for the transaction of its business' . . . Thus it appears its business cover the entire city and is directed from its office. . . . To transact said business . . . clearly the board was authorized to engage their services and fix their compensation. . . . The city manager and council also challenge the item for 66 clerks. They admit the authority to employ the clerks, but charge it was wasteful for the board to do so. The item being within the statute, the city manager and council are without authority to question it."

Validity of Sale Contracts by Municipal Officials

In many instances the Courts have held cities liable on written contracts of sales, made by persons having proper authority, although the instrument has defects such as incorrect price, date, form, quantity or quality of merchandise. These decisions are based upon the rule that a person, firm or municipality may ratify and be liable on a contract by using or appropriating the goods. However, it is important to know that a contract which is, for any reason void when it is signed, cannot be ratified although the city uses the merchandise. These important points of the law were thoroughly discussed in the recent case of Manufacturing Company vs. City of Portageville, 28 S. W. (2d) 119.

The facts of this case are that a state law provides that the city board of aldermen has power to purchase equipment for the municipal Fire Department. The law also requires the board of aldermen to keep a journal of its proceedings.

One day a representative of a fire hose company visited the city for the purpose of selling it fire hose. The board of aldermen of the city was not in session, and no meeting of it was called, and no action taken by it. The mayor of the city told two members of the board of aldermen to purchase 1,000 feet of fire hose for the city. Thereupon a written contract for the purchase of the hose was drawn up and signed. The total price of the hose was $1,150, which was shipped to the city and retained and used by it.

The bill was not paid for want of municipal funds and the seller sued the city to recover the amount.

The counsel for the city presented evidence showing that under the state law the city board of aldermen has the power to purchase fire hose, but it must keep a record of what it does and can only speak by its record. The mayor who orally directed the two aldermen to purchase the hose had no authority to give such direction. The result was that this contract, signed on behalf of the city by parties not authorized to act for the city under the law, was void.

The counsel for the seller conceded these facts but argued that the city was liable for payment because the city board afterward ratified the sales contract by ordering and issuing a warrant to pay the amount due.

However, since the original sales contract was void, the Court held the city not liable on the contract, stating the following important law:

"In any event, the contract to purchase the hose was void when made because executed on the part of the city without authority, and, being void, could not be ratified, because there was nothing to ratify. A contract by a city made with authority, but lacking in some way in its execution, may be ratified. . . . But a contract correct in form, but void for want of power to execute it, cannot be ratified. . . . The city had no power to make a contract to pay for something that was done before the contract was executed, and, since this contract was void when made, there was nothing to ratify."

Purchase of Equipment Held Void

It is well settled that the Courts will not imply powers granted by state legislatures to municipalities. Moreover, when the Legislature attempts to grant power to a municipality and the same is doubtful or uncertain, all doubts and uncertainties are resolved against the municipality. All powers conferred are to be strictly construed, and, in case of reasonable doubt, the power will be denied. In other words, powers conferred upon a municipality cannot be enlarged by liberal construction.

For illustration, in Van Eaton vs. Town of Sidney, 231 N. W. 475, a state law provides that municipalities may by vote of its citizens decide to issue bonds, and pay the same by taxation, for the purpose of erecting public improvements.

It was shown that at an election duly held a proposition was submitted to the voters whether the town shall purchase equipment and erect a plant on the condition that the funds and money necessary therefor shall not be raised by a bond issue or by taxes or by any kind of assessment or levy against the property taxable in and by the town. The result of this election was a vote of 194 in favor of the proposition and 47 against.

On February 10 following, the town council passed a resolution to enter into a contract with a manufacturer to purchase certain machinery, and the town then proposed to construct and maintain a plant sufficient to meet the needs of the town, consisting of a site, plant, building and necessary machinery and equipment.

The contract provided that the orders for equipment were not to be general obligations of the town, but special obligations, payable only from the revenues of the plant. The expenditures were to be met by 120 pledge orders payable monthly.

Certain property owners filed suit to prevent fulfillment of this contract on the grounds that since the state law provided that a municipality may issue bonds for such improvements, that it was illegal to imply that the city may issue

(*Continued on page* 1110)

Boston Is Proud of Its Fire Department Band

Each city of any size hopes that some day it might be able to establish and maintain a Fire Department Band, because of the part it plays in the civic life of the municipality. A 180-piece band composed exclusively of smoke eaters from the Boston Fire Department was recently established as an outstanding unit of the force. It was given an ovation at its first appearance in the city's Tercentenary Parade.

Safeguarding the Farm by Local and Community Fire Protection

The Farmer Himself, Cooperating with Community Fire Departments, Can Reduce Agricultural Fire Losses—Simple Precautions Necessary

For the striking and important statement made in the box on this page V. N. Valgren, of the Bureau of Agricultural Economics, Harry E. Roethe, of the Bureau of Chemistry and Soils, and M. C. Betts, of the Bureau of Public Roads, United States Department of Agriculture, are responsible. Their ideas on the subject of farm fire protection are embodied in the following article:

THE first question regarding construction of buildings on the farm is their location with reference to other buildings. A clear space of about 150 feet between buildings is needed for practical safety against exposure fires. Another point of great importance is to locate the main buildings, such as house and barn, so that prevailing winds do not blow directly from one to the other.

The roofing material is of particular importance in the construction of farm buildings, particularly the dwelling house. A substantial roof of tile, slate, metal, or other fire-resistant material costs more in the beginning, but has the double advantage of longer life and safety from sparks falling from the chimney or brands from another fire.

Chimney Construction and Lightning Protection

Construction of the chimney deserves special attention, and under no circumstances should anyone run the risk of making a fire-trap of his home just to save a few dollars. For safety in chimney construction, substantial masonry is necessary. This should, without exception, rest upon a solid foundation and not on brackets or any part of the building.

Protection against lightning is important, as this is one of the more frequent causes of farm fires in most parts of the United States. Except in the Pacific Coast States, where the lightning hazard is unusually light, no farm building of value should be considered complete until it has a standard system of protection against lightning.

Electrical apparatus constitutes a serious fire hazard unless it is properly installed. The use of improvised fuses, or fuses of too high amperage is highly dangerous. Open wiring should never be used on farm buildings in which flammable material such as hay is stored. All wires should be inclosed in conduits or other approved protective covering, and the work should be done by an experienced electrician.

Home Fire-Fighting Equipment

To be of real value, home fire-fighting equipment must be kept in a convenient place and ready for instant use. Ladders are always needed for fires on a roof. These may be attached to the building or may be of the portable type. If portable ladders are used, one should be fitted with a large hook for hooking over the ridge pole.

Many small fires can be extinguished by prompt use of a hand force pump and a piece of hose. A power-driven pump discharging water into a good-sized pressure tank is of much greater value, since many spots in a building can be reached only with water under pressure. To be effective, these small systems must be used before fires gain much headway.

Various types of first-aid fire extinguishers are highly useful on the farm. The most common is a 2½-gallon soda-acid extinguisher. The stream from this extinguisher has force to carry a distance of 30 to 40 feet and the flow continues for about a minute. Like the home water system, the hand extinguishers must be used before the fire has gained headway, if it is to be effective.

Community Fire Protection

The practice of providing organized rural fire protection has been spreading rapidly in recent years. About 15 years ago a few pioneer communities were experimenting with motorized fire-fighting apparatus. Now there are thousands of communities which have such service, either from their own equipment or that owned by nearby towns.

In Maine a substantial part of the rural homes and communities now have fire protection from nearby village or city departments that have special firefighting equipment for rural use.

In many communities, particularly in New York State, local mutual fire insurance companies have contributed toward fire equipment for departments in nearby towns, so that the members of these companies may have fire protection.

In eastern Pennsylvania notable progress has been made in providing fire protection for rural communities from nearby towns, and in several counties some of the townships have cooperated in purchasing equipment. Considerable progress along similar lines has been made in Maryland and Rhode Island.

Among the States of the Middle West, Michigan is a leader in rural fire protection. Approximately 200 rural fire trucks, stationed in cities or villages and

"If farmers would provide themselves with simple fire-fighting equipment and organize community fire companies, and if they would use more care and forethought in building, the Nation's $100,000,000 farm fire loss could be cut in half."—U. S. Department of Agriculture.

manned by organized companies, now operate in Michigan.

In the Far West California has taken the lead in rural fire protection. At present there are operating in the State approximately 200 rural fire companies, located in 10 counties. The main function of rural fire companies in California has been to fight range, forest and field fires in the dry summer season.

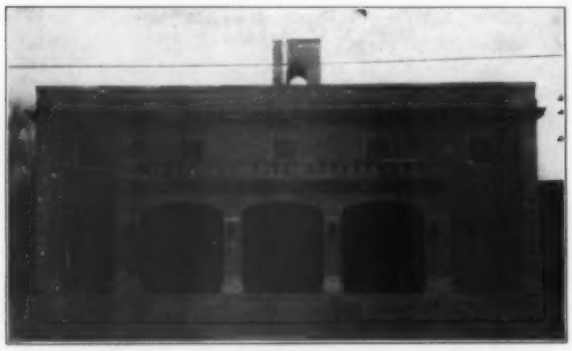
The ideas of the authors are further set forth in considerable detail in the United States Department of Agriculture "Farmers' Bulletin 1643-F, Fire Safeguards for the Farm."

Mansfield Opens New Fire House

The town of Mansfield, Mass., has a handsome new central fire house which was dedicated with fitting ceremonies on December 6.

Chief Arthur E. Soper, who served as chairman of the building committee, is very proud of the new structure which is two stories in height with drill tower in the rear. It is of yellow brick exterior with limestone trim. The interior is of mill frame construction, the apparatus floor being of concrete Swan treated, with walls of soft glazed tile. The upper floor is well arranged with large "common room" in front, the finish being buff plaster with wood trim.

The plans were drawn by George Ernest Robinson, of Boston, and the builders were R. H. Sewell & Co., general contractors, of Franklin, Mass. The house was built in five months at a cost of only $40,000, exclusive of the cost of



Fire House Recently Opened in Mansfield

the Gamewell fire alarm equipment, which is housed in a separate section of the building, entirely of fire resistive materials.

The apparatus floor has three large double doors and is occupied by Combinations 1 and 2, Engine 1, and Hook and Ladder 1. The engine is a 750-gallon Seagrave motor pumper and the truck is a Seagrave city service hook and ladder. One of the combinations is a Reo, equipped with booster pump, and the other is a White combined chemical and hose wagon. The doors can be opened by the pulling of cords suspended near the drivers' seats of the apparatus.

In a separate section, adjoining the apparatus floor, is a stall for the chief's car, with work shop in the rear. In back of the work shop is a room for storing acid and charging hand chemical extinguishers.

This room, like the workshop, is equipped with slate sink and running water. The interior of the drill tower at the rear of the building is fitted to be used for drying hose. The steam boiler for heating and the hot water system are installed in the basement.

Facing the Colonial style entrance doorway in front is the watch desk in a glass enclosed room adjoining the stairway. This watch room is fitted with alarm gongs and register, also telephone and call bells.

Toward the rear of the building a short flight of stairs leads to the fire alarm signal room, adjoining which is the storage battery room, with another room back of this to contain compressed air tanks and compressor for the whistle on top of the drill tower. The fire alarm apparatus is of the latest Gamewell type, and includes an 8-circuit manual storage battery control switchboard, 6-circuit automatic repeater, entrance cabinet for 8-circuits, transmitter, recording set, motor generator, and 4-shelf battery rack. These rooms are ventilated by copper framed skylights, of non-shatterable glass, and lighted by vapor lamps.

The chief's office is located just off the landing, at the turn of the front stairs leading to the second floor. It has two windows and a lavatory adjoining. On the second floor, the south end of the common room is set aside for a library. There are two company rooms approximately 25 feet square, bedroom for Deputy Chief Roy S. Martin, bedroom for two permanent firemen, another room to contain three beds, lavatory with wash bowls, toilets, and shower bath, kitchen, corridor, large cedar closet, and lockers. The electrical fixtures are of hammered brass.

The front of the building is decorated with ornamental red electric lamps of unique pattern and the inscription "Mansfield Fire Department" is in bronze letters over the apparatus doors.

On the wall of the common room on the second floor there is a bronze tablet which was unveiled on the night of the dedication and contains the names of the building committee, board of selectmen, town manager, architect, and builder. Brass sliding poles lead from the second floor to the apparatus floor.

On the afternoon of December 6 a flag presented by the John Rogers Women's Relief Corps was hoisted and the public was invited to inspect the house. It is estimated that about 2000 persons visited the building. In the evening the dedication, banquet, and annual reunion of the department took place.

Chief Soper acted as master of ceremonies and there was music and an entertainment.

The Mansfield fire department force at present consists of five permanent firemen and thirty-five call men. Besides the apparatus in the new house, there is a Reo combination hose and chemical in another station.

HARRY BELKNAP.

County Organization Aids Altadena

Altadena, Cal., had an experience that made many of the residents believe that they were going through the harrowing repetition of the famous Berkeley conflagration. During the night a wind estimated at 70 miles per hour raged through the town and helped spread fire up the brush covered mountain side. The Federal and County organizations were notified, and sixty-five trained firemen, one-third of the force of the Los Angeles County Fire Protection District responded. The men came from thirteen outlying county fire protection districts.

In addition to these members, the Altadena Fire Department answered the numerous calls for fires that broke out when electric wires snapped and fell on trees, roofs, and garages. Twenty-two runs were made during the period from 12:30 and 4:30 a. m.

Firemen Not Under Compensation Act

Macon, Ga., is faced with an interesting angle to the fireman's side of the workmen's compensation laws. Mrs. S. E. Whittington, mother of a private of Engine Co. No. 3, who was killed while engaged in fighting a fire in the Shrine Temple at Macon, Ga., December 1927 will receive no compensation under the terms of the compensation act, according to a recent ruling of the Georgia Supreme Court.

The Georgia Industrial Commission hearing the case several months ago made an award, but the city of Macon challenged the decision in Bibb County Superior Court. The award was affirmed but the city carried the case to the Georgia Court of Appeals. The case has finally reached the Supreme Court which held that a member of the city Fire Department is not an employee of the city within the meaning of the Workman's Compensation act. The opinion was given at the request of the Court of Appeals.

Attorney for the plaintiff said he would make further efforts to prove the city liable for the compensation. The attorney said he is contending that the city is liable for the money for as a "self insurer" the city included the fireman in its report to the Industrial Commission on the salaries of the various employees. This report is necessary under the rules of the commission.

JOHN A. STULB.

Former Wilmington, Del., Chief Dead—John H. Walker, formerly fire chief of the old volunteer fire department in Wilmington, Del., died at the age of eighty. He was born in Wilmington and lived there all his life.

What Happens When Inflammable Vapors Ignite.

This particular plant, which is located in the eastern section of the country, manufactured a pyroxylin product, and, as usual, highly inflammable, volatile solvents were employed. Explosion of the vapors thrown off resulted in the wreck illustrated above.

Waterproof—But Inflammable

Fabric and Leather Waterproofing Finishes Usually Make Fast Burning Fires of High Temperature—Suggested Methods for Handling Such Fires

THERE are at present several methods of waterproofing leather and fabrics, practically all of which represent severe fire hazards in manufacturing processes as well as readily inflammable material in finished form. The more common methods of waterproofing fabrics and leather include rubber cementing, rubber spreading, rubber dipping, oil treatment, pyroxylin coating, and viscol treatment, the latter being used almost entirely for leather while the former, for fabric.

The rubber treatments are chiefly hazardous due to the presence of inflammable solvents in the process of manufacturing. In the rubber cementing process, the thin sheet rubber is cemented to the fabric by a cement which has as a solvent benzine, gasoline, or other petroleum volatile. In the spreading process, the rubber is made into a sticky mass by the use of inflammable solvents and spread over the fabric. For the dipping process, the rubber is dissolved to form a cement, into which the materials to be waterproofed are dipped.

In each of the above processes of manufacturing the hazard lies in the presence of quantities of inflammable liquids as well as inflammable vapor.

Insofar as operating on fires at which the finished articles are present, the chief trouble is the presence of dense, choking smoke from the burning rubber. Rubber, at high temperature fires, burns rapidly while throwing off its heavy pungent smoke.

The oil treatment for fabrics consists largely of applying linseed oil, or a combination of linseed oil and other materials, to the surface of the fabric. Oxidation quickly toughens the oil, leaving a rubbery waterproof substance on the fabric which provides the waterproofing.

Linseed oil in itself does not represent a severe fire hazard except insofar as its tendency to cause fires by spontaneous ignition. Once afire, linseed oil burns with no greater intensity than does crude oil. It is not kept on premises in the quantities in which crude oil is commonly found so that its hazard may be considered appreciably less. The finished articles burn rapidly, throwing off heavy smoke.

Pyroxylin coating probably constitutes the most severe fire hazard in connection with waterproofing garments. The process of coating cloth with pyroxylin, or nitro cellulose compounds, is similar to that of coating with rubber compound, but the hazard is greater fundamentally on account of the high combustibility and relative instability of pyroxylin compound as compared with rubber compound. The same hazard of volatile flammable solvent is present, though instead of gasoline or benzol, such solvents as ethyl acetate, amyl acetate, and the higher alcohols are used.

In addition to the severe hazards in the manufacturing processes, pyroxylin coated fabrics represent severe fire hazards long after manufacture. Rapid combustion and generation of high temperature may be expected.

Viscol is a patented waterproofing material for leather. Some forms of viscol are solid and in this form it is a soft elastic material somewhat resembling

rubber and not very combustible. It is not subject to spontaneous ignition. In other forms it is semi-fluid. It is used principally as a waterproofing material for leathers. For this purpose it is thinned with some light oil such as kerosene or naptha. Leather is dipped into this liquid, then dried, the light oil evaporating and allowing the viscol to remain in the pores. Some forms contain no volatiles, and are not thinned. It is used chiefly in shoe factories for waterproofing soles and uppers. It is also used as a rubber substitute in the solid form. Viscol thinned with light inflammable oil should be treated as a gasoline hazard. In operating at a fire where this material is employed, great care must be exercised to prevent explosion of the vapors generated, or if there is likelihood of an explosion, to provide sufficient openings in the building to release any explosive pressures created.

The finished articles employing viscol do not represent any greater hazard than do the finished rubber articles.

Handling the Fire

If the fire occurs in the plant manufacturing waterproofed materials, the chief precaution to take is to minimize the danger of explosion of flammable vapors. With the exception of the oil skin plants, the hazard is present to a pronounced degree. Opening the building for thorough ventilation is a prime essential, all doors and windows should be opened as early as possible, and open vats covered, if covers are available. Keeping streams out of all containers of inflammable liquids is, of course, a very important precaution to take.

Where finished goods are encountered at a fire, there is one redeeming feature to be remembered: the goods are less damaged by water than would be the case where other than waterproofed articles are encountered. There may be heavy, pungent smoke, but this can easily be taken care of by proper ventilation. The use of water streams to wet down the material is the most satisfactory method of handling the blaze. This applies whether oilskins, pyroxylin, rubber or viscol coated materials are encountered.

Wealthy Actors' Beach Colony Destroyed in Los Angeles

More than sixteen fashionable beach homes of well known motion picture players and writers were destroyed by an early morning fire which all but razed the entire Malibou Beach colony, Los Angeles. Damages have been estimated at over $500,000. The fire spread with great rapidity as the homes closely adjoined each other, and before local fire apparatus arrived, flames had spread a mile down the beach.

NEW ENGLAND FIRE CHIEFS SELECT CONVENTION DATES

Association Will Probably Name Copley-Plaza as Convention Headquarters with Exhibits in the Grand Hall of the Mechanics' Building

By HARRY BELKNAP

THE ninth annual convention of the New England Association of Fire Chiefs will be held on June 23, 24, 25, and 26 in Boston. These dates were decided upon at a meeting of the officers and Board of Directors held on December 17 in the Hotel Statler, Boston.

The meeting was attended by Chief Selden R. Allen, of Brookline, Mass., President; Chief John W. O'Hearn, of Watertown, Mass., Secretary and Treasurer; Chief Charles E. Fortin, Lewiston, Me., Second Vice-President; Chief Arthur W. Spring, Laconia, N. H., State Vice-President; Chief Thomas F. Burns, Bridgeport, Conn., State Vice-President; Chief John E. Rhodes, Saylesville, R. I., State Vice-President; Chief William C. Mahoney, Peabody, Mass., State Vice-President; Chief John S. Pachl, Annex F. D., New Haven, Conn., Director; Chief James M. Casey, Cambridge, Mass., Director; Chief Alfred H. Koltonski, Rutland, Vt., Director; Chief John J. Kennedy, the Bryant Electric Company, Bridgeport, Conn., Sergeant-at-Arms; George F. Cobb, Boston, Traffic Manager; Harry Belknap, Boston, press representative; P. Hildreth Parker, Belmont, Mass., Herbert K. Pratt, Bridgewater, Mass., and George W. Austin, of Boston, Registrars from the Box 52 Associations; Chief Henry A. Fox, of the Boston Fire Department; and Thomas Mullen, representing Mayor James M. Curley, of Boston.

Preliminary plans for the convention were discussed. It is probable that the Copley-Plaza Hotel will be selected for convention headquarters and that the exhibits will be held in the Grand Hall of Mechanics' Building on Huntington Avenue with the meeting taking place in Paul Revere Hall which is in the same building.

Company Aids Employees Not Working

For forty years, French & Hecht, Inc., have been operating a mutual aid to assist employees incapacitated through illness or accident so that the earning power is stopped.

An assessment of one per cent is made on the weekly earnings. Should the income be reduced due to part time work, the tax is made on the amount earned during the week. To the amount thus collected, French & Hecht, Inc., added a similar amount thus doubling the fund.

A committee composed of workmen consider and pass on every application for assistance. The amount spent for food, clothing and so forth is returned when the person is again working, but no interest is charged on the loan. No cash can be distributed at any time. Since its organization the Association has paid in sick and accident benefits about $100,000 and has helped 1.500 employees to take care of themselves when wages have stopped because of sickness or accident. Modest assistance is also given in case of death.

Columbia Firemen Guests at Barbecue

An annual barbecue dinner for firemen was served recently at the Elks' club by the Columbia Merchants' Association of Columbia, S. C. The banquet was given in two sections, so that both shifts of firemen could attend.

Macfie Anderson, President of the Columbia Merchants' Association and one of the speakers, pointed out the valuable service rendered the city of Columbia by the Fire Department. Mayor L. B. Owens and Senator James H. Hammond were also speakers. They paid tribute to the splendid work being done by the firemen of the city.

D. G. SPENCER, JR.

Fire in Department Headquarters—Fire is no respecter of persons or property. Just after the regular monthly meeting of the Bayport, N. Y., Fire Department had ended, a very much excited person rushed in to say that the building was on fire and that the apparatus should be moved to the street. At first, the firemen expected that some practical joker was at work. When the odor of smoke was detected, the men went into action. Little damage was done.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

READIN', 'ritin' and 'rithmetic do not make a fireman. A knowledge of these fundamentals, however, is an excellent foundation upon which to build more specialized training in fire department matters. Although there are any number of public schools where one may acquire a thorough knowledge of the three well known R's, the number of colleges or cities that have made it possible for a fire department member to receive specialized training is insignificant. A training school may be found in many of the larger cities, but the medium sized city or municipality is somewhat handicapped.

To receive the technical fire department training, it is necessary that some appointed member or members of the Fire Department be sent to one of the training centers for a short course of instruction. At the state universities where these condensed courses are given, the school is arranged for a period not over five days. The training period at a city drill school or college requires a much longer period.

While many firemen and officers would like to attend these schools because of their desire to advance in the fire fighting profession, many feel that they can not afford the necessary expense. As a rule the schools are free, but living expenses and transportation must be met.

Many cities feel that it is a good move to pay such training bills because of the greater efficiency in the Fire Department that results. The men who attend the schools, when they return to their home town or city, serve as instructors in imparting the knowledge received at the specialized schools.

HERE IS THE PROBLEM

Does your city pay expenses of men attending short fire courses at the state university or at a nearby city?

How many do you send and are these men required to serve later as local instructors?

How would you improve on the results obtained?

The question in full that is discussed in this issue appears in the box on this page. In the box on the following page is the problem that will be treated in the next issue. Should you have some comments that you would like to add to the next discussion, you are invited to write to the "Round Table Editor," FIRE ENGINEERING, 24 W. 40th St., New York, N. Y.

Discussion of the Problem

Fire chiefs realize the value of sending their men to school for additional training and knowledge in fire department work. The following replies indicate how the problem applies to many cities:

W. N. Bates, Chief, Elyria, Ohio: This city has no regular funds or appropriations for paying the expenses of men attending short fire courses at the state university or at a nearby city.

When notices were received this year about the first Ohio Fire School to be held at Columbus, I asked for a leave of absence in order to attend and take one of our lieutenants who also wanted to go with me. We drove down in my Chief's car and expected to pay our own expenses.

City officials were apparently pleased with our attendance at the fire school, for upon our return money was appropriated to pay our expenses, and I hope they will continue to do so in the future.

Since attending the fire school we have started a regular drill school and are improving our efficiency in other ways. At present we are using all our officers as local instructors in order to discover who is best adapted for this work. Next year we hope to build a small drill tower and thereby make our drill evolutions more interesting and practical.

R. V. Hawcroft, Chief, Reno, Nev.: This city sent one man to Los Angeles to take the three-month course at their fire college. Since his return we have organized a fire school of our men, following the same general course of instruction as given at the Los Angeles Fire College. The officer sent to take the course now acts as instructor for our men.

An examination is given on each lesson before a new one is given out. We have changed our methods of handling ladders and hose to some extent so as to conform more nearly to those employed in the Los Angeles department. Our department shows improvement at the present time due to the work being carried on through our fire school. Future improvement is also anticipated as the study courses progress.

Owen C. Dunn, Chief, St. Paul, Minn.: The university where the school is held is located on the border of St. Paul and there are no traveling expenses. We pay the $1 registration fee for each man, which is the only expense.

We don't compel anyone to take the university course, but at one time or another, fifty of our men were in attendance this year. Upon request, we have sent instructors to some of the smaller towns in neighboring states.

Judging by the interest our Northwest Fire School has aroused among the members of the St. Paul Fire Department, together with the number of communications I received from volunteer fire departments throughout the states of North Dakota, South Dakota and Minnesota, I believe very satisfactory results are being obtained.

Thos. J. Nicholas, Chief, Camden, N. J.: As to expenses being paid for men attending the Philadelphia Fire School, this would be impossible for me to answer.

A few years back this department had two captains attend the Philadelphia Fire School in which they received the course that a rookie would receive on entering the Bureau of Fire. Both of these captains received a general high average and a diploma. After finishing the course they were assigned as instructors to visit all stations and both platoons. It took months to accomplish this task.

We do not have a drill school, but all new men upon entering the Bureau of Fire are put through the regular drills under the company commander.

My idea of improving the present plan would be for all officers to receive instruction in the newer practices employed and then instruct other members of the de-

partment in a like manner. Such instruction, would of course, be added to our regular drills. Where there is a fire school, I would say that all members go through the regular school routine.

Lawrence E. Reif, Chief, New Haven, Conn.: We have not sent any men as yet to attend short fire courses at the state university. But we have a drill school and an Officers' Fire College under way at the present time in our city.

We have sent three men at various times to the New York Drill School, and one man has attended the Officers' Fire College in New York. The expenses in each case were paid by the city, the men acting as instructors upon their completion of the courses.

S. C. Boaz, Chief, Henryetta, Okla.: My city has never failed to pay any expense account which I have presented to them for delegates to any training school or convention.

Oklahoma has had four short schools at the state convention, and I have had from two to four of my men attend these schools. Our state school was sponsored by the International and is not in operation at this time but will be soon. At that time I will have one man attend who will then become a teacher and drill master in my department. I do not know how this school work could be given in a better way to my men who are largely volunteers, or with less expense.

F. J. Ostertag, Chief, Burlington, Iowa: Up to the present time no member of this department has attended a fire college or university, but, if present plans develop, the city will send two men to Ames, Iowa, next year.

The state of Iowa is very fortunate in having an instructor out of the Iowa Insurance Bureau who is very competent. His services are free for the asking. He instructed this department on several occasions and I think he has done much to bring this department up to a high grade of efficiency.

The assistant chief is now instructor. He was instructed by the Iowa Insurance Service Bureau Drill Captain.

To improve on the results obtained from a drill master or college, drills must be held at regular intervals, and the same put in use at fires. Much has been accomplished here by having drills once each week, and the department has been improved fifty per cent since regular drill has been established.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

How do you regulate dry cleaning in your city?

What special equipment is required or what special regulations must be followed?

C. E. Carlson, Chief, Tacoma, Wash.: My city does not pay expenses of men attending short fire courses at universities or nearby city drill schools.

I sent one man to a nearby city drill school who was later used as instructor in this department.

T. B. Parks, Chief, Hannibal, Mo.: We have sent two men to the St. Louis fire school and the city paid their expenses while they were in attendance. We now use these men in our drill school here at home. I believe this to be a good scheme to follow out and is the next best to having an experienced drill master come in and take charge.

Fred. J. Washburn, Chief, Auburn, N. Y.: We have had our own school in this city since 1906, until the present year, when the training tower was torn down to make room for a new headquarters building.

No doubt the city will provide a new tower in the near future, and the training will be carried on again. In the event that firemen are sent away to school, the city should pay all expenses.

Ben E. Bangerter, Chief, Mankato, Minn.: Our city pays the expenses of the men sent to the Northwest Fire School held at the University of Minnesota, Minneapolis, and the Minneapolis Fire Department Drill School. Two men are sent there for the full course, each to specialize on a certain phase of the work.

To obtain the best results from the work, much depends upon the men selected to attend. They should be of a type naturally interested in this branch of the service who are quick to grasp the ideas conveyed, and who are in themselves capable of serving as instructors upon their return home so that every member of the department may benefit and participate in the knowledge which they have acquired.

Peter Steinkellner, Chief, Milwaukee, Wis.: We do not send men to attend fire courses at the state university. We do, however, send a drill team of seven men including a drill master to conduct and instruct firemen from neighboring cities who are sent to the university for the purpose of receiving instructions in fire fighting.

Our city does not contribute toward their expense. I consider it would be a wise move, providing it could be brought about, to have the state appropriate funds covering the expenses of the men attending such courses.

Robert M. Tappin, Chief, Gardner, Mass.: Our city sends men to the Worcester, Mass., Drill School, the city paying their expenses, which are very small, Chief McCarthy of the Worcester department furnishes everything for the men but their food.

My department is made up of twelve permanent men and forty-eight call men. I send two men each year to the drill school. The men being used as instructors attend school sessions for two years.

Capable men are selected to take these courses who wish to become instructors. When their courses are completed the data secured at these several courses is assembled in the form of instruction manuals; call, part call and permanent department. In other words, the idea is to furnish a sort of guide to give the best results for the purpose intended.

Archibald Howard, Chief, Ogdensburg, N. Y.: Last year the city paid expenses of two men to attend the Utica Training School for Firemen, and on their return we used them as instructors at our school and derived considerable benefit by it.

Last summer we had no funds available for sending any one to the Albany Training School, so for that reason no school sessions have been held this year.

I think there is a lot of benefit derived from sending men to firemens' training schools for when they return they are used as instructors and we all profit from experiences derived from their attendance at such sessions.

E. E. Chase, Chief, Lynn, Mass.: The captain in the Lynn Fire Department who seemed to me to be best fitted to be drillmaster was selected by me and received a thorough course of instruction at the Boston Fire College. He paid all his own expenses and nothing was paid for him by the city. He is now detailed as drillmaster and instructs all men in the department of his own or a lower rank.

John C. Moran, Chief, Hartford, Conn.: A number of our chief officers and instructors of this department in years past have attended the courses of the New York City Fire Department Drill School and Fire College. The city has always paid the expenses of these men while so engaged.

As a general rule, two men are sent to take these courses, although we sometimes send one. Most of the officers who have attended the New York Fire College have later served as instructors.

We cannot improve much on the results we have obtained.

Geo. S. Watson, Chief, Washington, D. C.: This department does not assign men to fire courses at any state or similar university, but we do operate what we consider to be a very efficient and up-to-date training school. Our men are sent to this school for an intensive thirty-day course of training in the more important branches of their work, and the results which we are obtaining have been more than satisfactory.

Since the institution of these training courses we have added to the subjects taught, and no doubt a similar progress will be found in the future.

Roger Boyle, Chief, Jersey City, N. J.: Some time ago through the kindness of Chief Kenlon, I sent one of our

(Continued on page 1106)

With the Editor

FIRE ENGINEERING desires to extend to all of its readers wishes for a very Merry Christmas and every joy of the Yuletide season!

And, as 1931 will have rolled in before another issue goes to press, it wishes also to express the hope that the New Year will bring to all great prosperity and happiness!

Safeguarding Tenements From Fire

New York City is at the present time struggling with the formation of "multiple dwelling law" that will satisfy all of the varied interests involved. One of the difficulties—and a great one—has been to formulate provisions as regards fire safety that will be satisfactory to all concerned.

Originally, it was proposed to insert a requirement in the law calling for all walls and ceilings of stores in so-called "old law" tenements to be "fire retarded." This raised a storm of protest from owners of the buildings, on the claim that such provisions would result in the vacating of thousands of stores. It had been calculated that 13 per cent of all tenement fires originate in stores and that the proportion of such buildings containing stores is fully one half of the total.

The committee in charge of the revision of the law has since the protest carefully analyzed the figures on tenement fires and it is authority for the statement that less than 6 per cent of such fires spread beyond the stores, and five-sixths of these are spread by means of pipe recesses, flues, shafts and doors. Such openings, naturally, are not affected in any way by fire-resistant ceilings.

It is, therefore, proposed to concentrate rather upon these hazards and insists that the openings be properly protected. If the owners fire retard such openings, through the use of self-closing doors, or in the event of this being impossible, seal them up where opening into stores, the provision as regards the fire resistant ceilings can be dispensed with.

The provisions of the law, as proposed, will also require all exposed wooden beams and studs to be covered with incombustible material. By such provisions and others equally important, it is hoped to reduce the tenement house hazard in the big city to very great extent.

Protecting Waters From Oil Pollution

The discharge of waste oil from oil-burning steamships and other craft into the navigable waters surrounding cities and towns is becoming more and more of a menace from a fire standpoint not only to navigation but also to the docks and wharves of the adjacent cities and villages.

An example of this occurred recently in Troy, N. Y., in which two vessels were destroyed through oil discharged by a tanker drifting around them and becoming ignited. One of the vessels exploded, causing heavy damage to surrounding property and the injury of several persons. In New Orleans not so long ago a very serious wharf fire was caused by oil on the surface of the water floating under the dock structures and becoming ignited. Many other instances, more or less serious, could be cited of fires caused by this menace.

A committee of the American Engineering Council, headed by that eminent Water Works Engineer, Robert Spurr Weston, of Boston, as Chairman, is making an exhaustive study of the problem of pollution of navigable waters in all of its phases, and has devoted much time to the consideration of the question of oil discharge. Bills now before the United States Congress have been studied and where necessary amendments suggested which will make them more effective. If needful, an entirely separate bill will be introduced to give the Secretary of War power to properly regulate the discharge of oil into the coastal waters and to provide adequate punishment for violators of the act. Two representatives each from the American Petroleum Institute and the American Steamship Owners' Association will cooperate with the committee.

The committee's deliberations and its proposed remedies will be watched with interest by all Chiefs of cities having navigable waters surrounding them and extensive waterfronts to guard from fire.

Two Planes Menace the Same House

Whatever may be said of lightning failing to strike twice in the same spot cannot now be claimed as to the airplane. It is decidedly jarring to the nerves, after one's dwelling has been practically destroyed by fire through a blazing plane dropping upon it, to have another one drop in one's back

yard, narrowly missing the house, less than a year after the first occurrence.

This is what happened to a Long Island, N. Y., householder, and he is now wondering when and where the next visitor from the air will arrive! Fortunately, in the second tumble no fire accompanied the smash, and so the dwelling was saved from destruction.

The incidents referred to, trivial in themselves, emphasized again the menace which is involved in the increased use of the airplane from the standpoint of the fire hazard, and the problem that this added use is going to raise—and in fact has already raised in many instances—for the Chief of the Fire Department. If planes are to drop upon buildings and forthwith burst into flames, some means will have to be devised to render such structures—whether dwellings or commercial buildings—immune from such accidents, or else aerial regulations to protect buildings against falling planes will have to be enforced.

Certainly, even at the present time, buildings situated near an airport are quite susceptible to the very accidents which in one instance demolished and in the other threatened to destroy the home of the Long Islander. With the certain increase in the use of air transportation such accidents will naturally increase, especially as the number of inexperienced operators is added to. A more rigid and careful inspection of planes before taking off and stringent regulations as to low flying in populated sections may help. But the hazard will, nevertheless, be ever present and the proper handling of fires caused by airplanes will provide a new and interesting subject for Chiefs to study and master. The sooner the better, it would seem!

When Its One Down and One to Go

Along the Pacific Coast where weather conditions are much more favorable than they are in the east, members of fire departments find considerable exercise and enjoyment in playing the great American game of football. A team of expert players has been developed by the Los Angeles Fire Department, and memory of a series of inter-sectional games still lingers with the New York Fire Department. The photograph shows part of a scrimmage game with the players protected by the customary department helmets—but not for long.

I. A. F. C. DIRECTORS MEET JANUARY 13-14

Directors of the International Association of Fire Chiefs will meet in New York City, January 13-14, to complete plans for the coming convention that will be held in Havana, Cuba.

Chief J. N. Sullivan, President, Chief Richard L. Smith, Second Vice-President, and Chief Charles A. McGinley, Chairman of the Exhibit Committee, are to leave New York City on January 6 for Havana, Cuba, to check-up on local convention facilities for the Chiefs who will attend the annual gathering. They will be back in time for the Directors' meeting and will report on local arrangements.

Fireworks Plant Destroyed

Two workmen were almost instantly killed and two others fatally injured in an explosion of fireworks powder which totally destroyed the plant of the Colonial Fire works Company at Darien, Conn., on December 4.

The explosion started when an aerial bomb which an employee of the company was packing with "Blue Star" powder caught fire from the friction occasioned by tapping the powder into the bomb. The bomb flared up, burning the workman's hand and as he dropped it with a cry of pain, the blazing bomb fell into a basket filled with seventy-five pounds of the "Blue Star" explosive. This exploded instantly with a terrific detonation, spreading fire, destruction and terror within the one-story frame building which housed the plant.

Three other employees of the plant who were engaged in the same line of work were nearby and were terribly burned before they could make an escape. The entire clothing of one of the men who died from the explosion was blown to ribbons while the others were burned about the head, face and body. The injured men later died.

The same factory was the scene of a fatal blast on April 2, 1925, when one employee was killed. The building was totally destroyed, parts of the woodwork being thrown several feet from the scene of the explosion. Fire reduced the plant to ashes before the Darien and Stamford Fire Departments could be notified.

THOMAS F. MAGNER.

Firemen Recover Bodies of Drowned Boys

Two young boys crossed the Kennebec River, two miles above the village of Richmond, Me., to tend to muskrat traps. Returning in their small boat, a strong wind capsized the boat, and since the boys were a long way from shore and were dressed in heavy clothing, they soon drowned. A younger brother saw the accident from shore.

Members of the Fire Department responded to a telephone call and eight boats with three men in each were assembled with the necessary grapples to look for the bodies. In the afternoon of the first day of the search, four more boats were added. The men were all call men of the department and gave up their regular work to donate their services. They worked for two days under the most trying conditions—intense cold and then a snow storm followed by a high wind before the bodies were recovered. The town is highly pleased that its call members possess so much grit.

Williston Park Wants New Apparatus—Williston Park, N. Y., is considering the purchase of a combination ladder truck and pumper.

Irvington, N. Y., May Have New Fire Alarm—Irvington, N. Y., is considering the installation of a modern fire alarm system.

Boston Shifts Firemen—Forty-one members of the Boston Fire Department were transferred to new station through a general order of Commissioner Edward F. McLaughlin.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

A Dynamite Fire

To the Editor:

Will you kindly answer the following questions in your magazine?

Have railroads certain rules regarding shipping, placing and marking the dynamite? Can the caps be shipped in the same car as the dynamite? Will express companies handle it?

What would you do in case a car of dynamite took fire on a railroad siding if your department were operating at the fire? What precautions should be taken to protect the men and in putting the fire out? Would the jar from a 2½" line against a box of dynamite set it off?

Also, with regard to carbide fires, how would a person fight this type of fire?

F. R. M.

Answer: With regard to the transportation of explosives, rules for such transportation in this country are prepared by the Bureau of Explosives, American Railway Association, 30 Vesey Street, New York City. You can doubtlessly secure the information you want on these regulations by writing direct to the Bureau.

If a carload of dynamite took fire on a railroad siding, and your department were operating at the fire, the best thing to do would be to put as big a distance between the force and the burning car you could in the shortest time possible. While an explosion may not occur, still there is tremendous danger of such taking place.

In handling a carbide fire, the chief precaution is to keep water away from it. If carbide is involved in a fire, it will not add much to the intensity of the fire if kept away from water. It is the release of gas by the application of water that causes the trouble. Carbon dioxide extinguishers can be used on small fires involving calcium carbide with good effect.

A Long Stretch

To the Editor:

I would like to have you answer the following question:

Can a motor pumping engine of 1000 gals. capacity maintain a nozzle pressure of 60 lbs. on a line of 2½" hose, 5000 feet in length, equipped with a 1⅝" nozzle?

If such a performance is possible, I certainly would appreciate a solution of the above question.

H. A. D.

Answer: No motor pumping engine as is built at the present time for fire department service could pump through a stretch of 2½" hose 5000 feet in length and deliver a pressure of 60 lbs. at 1⅝" nozzle. Such a layout would require pressure in the neighborhood of 4000 lbs. at the engine.

Hose On Chemical Car

To the Editor:

Will you kindly advise me how many feet of ¾" chemical hose should be carried on a hose and chemical apparatus, where there are two 35-gallon soda and acid chemical tanks?

Assuming you recommend 150 ft., how much would your pressure be reduced if you add 50 or 100 feet more? Also would it be advisable to add more than you recommend?

M. A. F.

Answer: The usual practice is to carry 200 feet of ¾" chemical hose on chemical apparatus. In some cases where there are several tanks, more hose is carried, so that two or more lines may be stretched and put in operation at the same time.

Assuming that a ¼" nozzle is used on the line, we would solve for nozzle pressure in the following manner. This solution is based on the assumption that the pressure in the chemical tank is in the neighborhood of 100 lbs.

$$N.P. = E.P. \div (1.1 + K \times L)$$

Where "K" is the factor depending upon the hose and nozzle diameters and "L" the number of 50-foot lengths of hose in the line.

We must first convert the 200 feet of ¾" hose to 2½" hose. This is done by dividing by the conversion factor .0029.

$200 \div .0029 = 70{,}000$ feet of 2½" hose, approximately

The value of K for ¼" nozzle on 2½" hose is found by multiplying ¼ by itself three times, or .25 x .25 x .25 x .25, and dividing this product by 10.

This gives us a value of K = .0039, approximately.

Then

$$N.P. = 100 \div (1.1 + .0039 \times 1400)$$
$$= 100 \div (1.1 + 5.46)$$
$$= 100 \div 6.56 = 15.2 \text{ pounds nozzle pressure, approximately}$$

Now as to the effect which would be produced if 100 feet of ¾" hose were added to this line, the following solution, employing the same factors as above, with the exception of L, which in this case will be 2100, we get:

$$N.P = 100 \div (1.1 + .0039 \times 2100)$$
$$= 10 \div (1.1 + 8.19)$$
$$= 100 \div 9.29, \text{ or } 10.8 \text{ pounds nozzle pressure}$$

Thus reducing the length of the line by 100 feet reduces the nozzle pressure approximately 4 pounds.

No Pressure At Nozzle

To the Editor:

In a recent issue of one of the daily papers I note the following statement:

"The pressure in water from a nozzle is nil on leaving the nozzle of a high pressure fire hose, the stream of water still has speed and weight, but its pressure intensity is nil. It has long been recognized that weight has no effect on the intensity of fluid pressure."

In view of the fact that they are continually referring to nozzle pressures I do not understand the above statement and wish you would enlighten me as to its correctness.

K. J. G.

Answer: Immediately after leaving the nozzle, there is no pressure to the stream. To state it technically, pressure head has been changed into velocity head. In other words, the pressure which existed within the hose as been changed to velocity.

The pressure gages or pitometers which are used to de-

termine nozzle pressure in reality do not show the pressure at all at the nozzle but, instead, convert velocity head into pressure head. What the pitot-gage actually shows is the pressure which would be required to give the stream the velocity which it possesses. That is why the pitot-tube is placed at a sort distance away from the nozzle when reading.

The pressure head, or pressure, within the line of hose gives the water a velocity, which, coupled with the weight of the water, gives the momentum produced.

With reference to the last sentence of the statement, the weight of the fluid has no effect on the intensity of the pressure. Pressure confined to a fluid enclosed is transmitted in all directions and as long as substances under pressure is fluid, there is no loss of pressure. For instance, if twenty-five pounds of pressure per square inch were impressed upon an enclosed fluid, this pressure would be transmitted directly to the walls of the container irrespective of the fluid employed.

Opening High Pressure Hydrant

To the Editor:

I would appreciate your answering the following question:

In stretching a 3½" line from a fireboat, connecting to a high pressure hydrant and operating a high pressure hydrant, what would be the first valve to open, the main or the independent valve, on the high pressure hydrant?

According to the book "What Every Fire Fighter Should Know," it gives the main valve first and the independent valve last; and in shutting down, the independent valve first and the main valve last.

I have been told that this is an error and that the correct method is to open the independent valve first and the main valve last. You understand we are assuming that the fire boat is actually pumping into the high pressure system. I have read several books and they have stated that the main valve should be opened first and the independent valve last. However, rather than debate on this I have decided to write and see if I could not get some light on the subject.

H. A. L.

Answer: When opening a high pressure hydrant to feed a line attached thereto, the proper procedure is to open the main valve first, and the independent valve, supplying the line, second. The purpose of this procedure is to insure opening the main valve fully. Were the independent valve opened first and then the main valve opened, there is a possibility that the rush of water through the main valve into the line might cause a jamming of the main valve, and would thus prohibit its being opened fully. By opening the main valve before the independent valve is opened, the hydrant barrel is filled with water and the pressure on both sides of the valve is equalized, making it possible to open the main valve fully with ease.

Where water is being pumped into the hydrant from a fire boat, the same procedure would probably insure better control, for the following reason: suppose the pressure from the fireboat should, due to some cause or other, drop much below the pressure in the hydrant, it would be possible to quickly shut-off the independent valve, and even close it before it is fully opened in the event that such operation was necessary. On the other hand, suppose the independent valve was opened first and then the main valve opened, if there should be much difference in pressure between the higher pressure in the hydrant and the lower pressure in the lines from the fireboat, the main valve may become jammed.

On the other hand, if the pressure from fire boat is brought up to that in the high pressure piston, either valve could be opened first without any difficulty in opening the other valve.

Danbury Firemen Provide for Needy—Members of the Fire Department in Danbury, Conn., are repairing toys for distribution to the poorer children of the community. Firemen, in addition, have pledged two dollars each month from their salaries to be used in caring for needy families.

Presenting the Champion Fire Buff

Most every one interested in fire fighting matters knows "Jerry" Daly. Members of the New York Fire Department not only know him but they look for him at every large fire in the city for "Jerry" holds the undisputed title of the Champion Fire Buff. He estimated that during the past thirty-five years he has attended at least 3,000 fires.

To the readers of FIRE ENGINEERING he is known as William Jerome Daly. He has contributed many articles on major fires that he has attended and other matters of interest to the fire profession. Officially he is Assistant Secretary of the Board of Transportation and at present is serving on Mayor Walker's Committee for the Unemployed. Fundamentally he is a fire fan. At his home he has a miniature light house which indicates by means of red flashes the location of boxes pulled. During the war he served as

Even During His Leisure Moments Jerry Daly Is Ever Beside His Flashing Fire Alarm Signal

Bronx Borough Chief of the Auxiliary Corps of the Fire Department.

He has a boy fourteen years old and a girl twelve years old, neither very much interested in fires. As Mrs. Daly expressed herself:

"One fire fan in the family is enough!"

Chief Henry A. Fox Gives Radio Talk

A talk on "Fire Prevention in the Home," was given by Chief Henry A. Fox, head of the Boston Fire Department, through stations WBZ and WBZA.

Chief Fox said, "It has always seemed strange to me that while the average person takes every possible precaution to protect his health and to prevent the spread of disease, yet he gives little attention to the matter of preventing fire which is one of the important problems of the day." In his talk he described the common fire hazards in the home and the necessity of knowing the location of the nearest fire alarm box.

He concluded his talk by remarking, "As Chief of the Fire Department in the largest city in New England, I ask the hearty cooperation of every householder in helping us to reduce the fire loss and safeguard the home."

HARRY BELKNAP.

25 FIREMEN HURT WORKING AT NEW HAVEN WAREHOUSE FIRE

Three Alarms Turned in—Entire Company Nearly Wiped Out As Wall Gives Way—Fire Had Considerable Headway When Reported

By THOMAS F. MAGNER

PROPERTY damage estimated at $250,000, and injuries to 25 firemen were the toll of a fire which swept the huge warehouse of the Smedley Company on Chapel Street, New Haven, Conn., on the night of November 23, leaving the building in ruins, endangering the lives of scores of firemen as walls and high tension wires collapsed, and cutting off all electrical connection from the eastern section of the city.

Fire was discovered by a passerby, who pulled an alarm box at Chapel and Hamilton Streets at 9:36 p. m. This alarm brought Engine Companies 2, 4, 7 and 12, together with Trucks 1 and 6. Chief Lawrence E. Reid responded on the first alarm and immediately after finding the building merely a brick shell enclosing a seething mass of flames, ordered a second alarm, which summoned Engine Companies 5 and 8, and Truck 3. At 9:45 p. m. a third alarm was sounded by Chief Reif and called out Engine Companies 1, 3 and 6, and Truck 2.

The upper floors of the building, which was a brick structure used mostly for the storage of furniture, with the main floor being occupied by a wholesale grocery concern, were soon one mass of fire. Flames beat against the windows, cracking and destroying the glass. Two cupolas acted as vents in the top story, and up through these billowed gusts of flame, visible for miles and attracting thousands to the scene.

The fire had already gained considerable headway and under the direction of Chief Reif and his Assistant Chiefs, Francis Spaine and Richard R. Green, thirty lines of hose were connected, hurling tons of water into the heart of the fire. Several lines were concentrated on the Chapel Street side of the warehouse, while other men took vantage points in the Ideal Shirt Company Building on the west and in a wooden two-story house on the east, which is separated from the Smedley Building by an eighteen-foot alley.

Large Amount of Furniture Lost

The greatest money loss was in the destruction of the contents of the Smedley Building, including serious damage to about $100,000 worth of furniture. Other goods lost in the blaze included a large number of automobile bodies and several complete cars, along with huge quantities of paper. This loss came to another $70,000. The building was damaged to the extent of $40,000, and the Thomas C. Hood Company, wholesale grocers, who occupied the ground floor, sustained losses of approximately $25,000, which was not covered by insurance. The Ideal Shirt Company, adjoining the Smedley Building on the west, suffered a $15,000 damage and 350 girls employed there were thrown out of work for a week.

Members of Engine Company Endangered

The entire membership of Engine Company 12 was nearly swept to death while the men were working on the Chapel Street side. Four of the crew were ordered to get inside the building with the hose and work from that point. No sooner had the men entered when Captain Thomas Delaney heard a warning crack from the roof and shouted to his men to get out. A second later the entire wall hurtled to the ground. The four men were struck with flying bricks and injured, but not seriously.

Courtesy, the New Haven Register

Close-Up View of Part of the Roof of the Main Building of Smedley Company, New Haven, After the Fire

Members of another company were working on the floor above and had just stepped from the east wing across the threshold of the west wing, as the floor of the east wing dropped away. In an alley below there was no warning of the collapse and men working there with a charged line were showered with bricks and knocked to the ground when the wall gave way. Ambulance doctors summoned to the scene treated the injured firemen.

John T. Sloan, President of the New Haven Board of Fire Commissioners, was present at the fire and had high praise for the department. Chief Reif declared that he is unable to determine the cause of the fire owing to the complete destruction wrought by the blaze.

Firemen Hurt at New Haven Blaze

Many firemen were hurt in New Haven, Conn., and property valued at $250,000 destroyed, when flames swept through the Smedley Company's warehouse in lower Chapel Street, New Haven, Conn. The fire was confined to the warehouse. Many of the high tension lines fell and trolley service was disrupted. The photograph shows the ruins of the warehouse after a portion of the walls had collapsed.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Week Ending December 12	Loss in Thousands of Dollars
BELOIT, WIS.—Several business establishments	600
WASHINGTON, PA.—Business bldg., Main St. and Pine Ave.	40
CLINTON, IA.—Nissen and Jacobson block damaged	40
GALESBURG, ILL.—Main plant of Rowe Mfg. Co.	—
KLAMATH FALLS, ORE.—Business property destroyed	—
MOHAWK, CALIF.—Property of Col. C. A. Lundly	25
TOLEDO, OHIO.—Bldg. occupied by Toledo Cotton Goods Mfg. Co.	25
LOGANSPORT, IND.—Bellas-Hess department store	40
CLEVELAND, OHIO.—Bldg. occupied by Stone Shoe Co.	80
ROCKFORD, ILL.—H. L. Wortham Co. store damaged	150
LEWISTON, ME.—Tenement owned by Eagle Realty Co.	40
SEAFORTH, ONT.—Three business establishments	50
BUTTE, MONT.—Bank hotel block destroyed	175
PIGEON, MICH.—Gem Theatre bldg. adj. property	25
CROOKSVILLE, OHIO.—Plant of A. E. Hull Pottery Co.	40
WILMETTE, ILL.—North wing of Wilmette Golf Club	60
PARKESBURG, PA.—Eby store bldg., adj. property	35
JERSEY CITY, N. J.—Plant of City Chemical Co. destroyed	80
CRESTON, IOWA.—Business and apartment property	80
NATIONAL CITY, ILL.—Plant of E. St. Louis Rendering Co.	65
ACTON, MASS.—Main bldg. of American Smokeless Powder Co.	40
MEMPHIS, TENN.—Ford Hardwood Lumber Mills destroyed	100
NASHVILLE, TENN.—Storage dept. of State Highway Garage	25
FALLS CITY, ORE.—Sawmill of Cobbs-Mitchell Co.	65

HEMPSTEAD, L. I., N. Y.—Commonwealth Inn damaged..... 40
NEWARK, N. J.—Property at 468 18th Ave., of Dr. E. Mauther..... 25
BAY SPRINGS, MISS.—Several business bldgs..... 25
BINGHAMTON, N. Y.—Property at 175 Washington St..... 25
ROANOKE, VA.—Nelson Hardware store, adj. property..... 80
PLATTSBURG, N. Y.—Service Cub bldg., Plattsburg Barracks.... 80
LEE CENTER, ILL.—School bldg. destroyed 40
INDEPENDENCE, OREG.—Whse. of Hershberg Milling Co..... 30
HOLDENVILLE, OKLA.—Store of Adams Dry Goods Co..... 45
ST. LOUIS, MO.—Bldg. at 409 North First St..... 40
ORONO, MINN.—Boathouse and contents, Minnesota Marine Corp... 200

Week Ending December 19

LOS ANGELES, CAL.—Eighteen residences of Malibu Beach colony 650
PREAKNESS, N. J.—Residence of Dr. C. S. Geiger..... 35
YAKIMA, WASH.—Country club, 6 mi. from here, destroyed..... 35
TUCKAHOE, N. Y.—Property of Benedict Stone Corp..... 400
BOARDMAN CENTER, OHIO—Stock barn of Frank Hitchcock..... 80
PHOENIX, ARIZ.—Bldg. of Capital Fuel and Feed Co..... 40
SOUTH LEE, MASS.—Woodworking plant of D. D. Hopkins Lumber Co. 65
ALBANY, N. Y.—Cameron Lumber Co. plant, Central Ave..... 35
ST. LOUIS, MO.—Apartment property of W. B. Stauter..... 50
LINCOLN, NEB.—Plant of Nebraska Lumber & Millwork Co..... 40
BEAUPORT, QUE.—East wing of St. Michael Asylum..... 600
AVALON, CAL.—Yacht "Valiant" owned by C. S. Howard..... 250
SHUBENACADIE, N. S.—Post office and adj. property..... 65
VACAVILLE, CAL.—Walter's Dry Goods Store bldg..... 35
NORWICH, N. Y.—Flanagan block damaged 35
COSHOCTON, OHIO—Rickett's block destroyed, Main St..... 65
URBANA, OHIO—High school bldg. destroyed..... 65
PENNBURG, PA.—Two bldgs. of Perkiomen Trunk Co..... 300
DECATUR, ALA.—Country home of S. A. Cortner destroyed..... 25
MOBILE, ALA.—Plant of Transit Lumber & Mill Co..... 25
HOUSTON, MO.—Texas County Clubhouse 40
DES MOINES, IOWA—Barracks at Ft. Des Moines destroyed..... 40
ADAMS, WIS.—Picus grocery store, adj. property..... 40
TERRY, MISS.—Store of J. W. Grantham Mercantile Co..... 25
ERIE, PA.—Lumber yard of Jerry Quirk destroyed..... 65
OLUSTEE, OKLA.—Famous Dry Goods Co. store destroyed..... 25

FIRE SALVAGE DISCUSSED BY WESTCHESTER FIRE CHIEFS

Chief Mulcahey Talks on Subject Before Fire Chiefs' Emergency Plan — Traffic Regulation at Fires — Good Attendance

A FEATURE of the regular monthly meeting of the Fire Chiefs' Emergency Plan, of Westchester County, N. Y., was a talk on salvage work by Fire Departments, by Chief James J. Mulcahey, of Yonkers, N. Y., Recording Secretary of the International Association of Fire Chiefs. The meeting was held at Fire Headquarters, Yonkers, at 8 p.m., on December 17, with Chief H. E. McTavey, President, in the chair and with a large number present. Two associate members were elected, W. A. Barry, Manager, Metropolitan District, Eureka Fire Hose Company, New York, and David Leerburger, Walter Kidde & Co.

Letters were read by the Secretary from Ralph A. Gamble, Judge Harry Hoop and Mr. Sneller, regarding the matter of compensation for firemen injured when answering out of town calls. Mr. Gamble offered one hundred per cent cooperation with the Plan and urged that legislation be drafted as rapidly as possible looking to the establishing the responsibility compensation for such injuries. Judge Hoop suggested that, as he was unable to be present at the meeting, that it would be well for a committee to meet with him as well as Messrs. Gamble and Sneller, so as not to delay until the next meeting of the Plan. A motion to this effect was passed and the matter was referred to the committee in charge of the matter, of which Chief Mulcahey is Chairman. In his letter Mr. Sneller also offered full cooperation with the members in this important matter.

A letter from W. H. Jordan, Signal Office, Orange, N. J., in which he suggested that rather than orange either blue or purple lights be adopted to mark the location of fire alarm boxes. The letter was laid on the table. A letter was read from former President Towle regretting his enforced absence from the meeting and suggesting that the Plan take up the matter of traffic regulation at fires. He called attention to the very bad conditions obtaining in this respect at the extensive Stone Quarry Plant Fire in Eastchester recently. The Secretary was instructed to communicate with the Police Association in regard to the matter.

Chief Mulcahey then spoke at length on the general subject of fire department salvage and rescue work and particularly emphasized the things that had been accomplished by his Salvage and Rescue Squad. He pointed out the advantages accruing from the adoption of salvage methods by Fire Departments throughout the country and the vast saving in property loss resulting from the use of covers, the handling of fires in early stages with chemicals or small streams, and so on.

He went on to cite some examples of great saving in damage which the men of his corps had effected by the use of small streams or chemical extinguishers, and especially in being able to get to the heart of the fire quickly through the use of gas masks. The latter, he said, was responsible for the saving of many thousands of dollars to property owners. Much good work had also been done along the line of rescue in cases of asphyxiation, etc., by the corps.

Chief Arthur Steuhl, of Eastchester, introduced Fire Commissioner Murray of the township, who, on his request, was elected a member of the Plan. Mr. Murray spoke very earnestly on the subject of the serious problem involved in traffic regulation at such fires as that in the stone quarry buildings in Tuckahoe. This fire, he said, in three huge one-story frame buildings, in some cases over fifty feet in height, spread so quickly that before the first apparatus could arrive the entire plant was involved. The blaze, of course, could be seen in all parts of township, and the consequence was that before the second alarm and assisting apparatus arrived, the avenues of approach were so choked with private automobiles that the apparatus had great difficult in getting near the fire. It seemed to him almost an impossible problem to solve, with the comparatively small police force available, to regulate such a mass of traffic arriving in all directions.

After the meeting adjourned the Yonkers Salvage Corps, consisting of two officers and eight men, gave an interesting and snappy demonstration of the placing of covers under varying conditions.

A turkey dinner was served by Chief Mulcahey and his men to the members following the demonstration. The next meeting is to be held at Harrison, N. Y.

Among those present were:

Fire Commissioner Murray, Eastchester; Chiefs Steuhl, Eastchester; Mulcahey, Yonkers; Brennan, Pelham Manor; Limekiller, Hastings; Jones, Hartsdale; McTavey, Mt. Kisco; Fallon, Irvington; Gibson, Mt. Vernon; Griffen, White Plains; and others, besides several officers of Fire Departments. The Associate Members present were David Leerburger, Walter Kidde & Co., and Robert H. Lockwood, Editor, FIRE ENGINEERING.

Pacific Coast Chiefs to Meet in Honolulu

The thirty-eighth annual convention of the Pacific Coast Association of Fire Chiefs, according to advices received from Jay W. Stevens, Secretary, is to be held at the Royal Hawaiian Hotel, Honolulu, T. H., on September 19 to 22, 1931. The party will leave San Francisco, Cal., on the 11th and Los Angeles on the 12th of September on the "City of Los Angeles," returning to Los Angeles on September 28 and San Francisco September 29.

Referring to the arrangements for the convention, Chief Stevens writes:

"The round trip fare is $216. This is the lowest rate ever quoted for the trip. Hotels will range from $5 to $18 per day. Very good accommodations can be had at the lower price. There are a number of interesting side trips which may be made, such as the volcano at Hilo, but all told the cost per person should not exceed $260 from the time they leave San Francisco until they return. We expect to have about 400 in our party. Any of the Eastern Chiefs and their friends are cordially invited to join us."

Allegany, N. Y., Buys Pumper—The town board of Allegany, N. Y., has purchased a pumper for fighting fires outside of the village.

Board of Commerce Against Fire Alarm—The Board of Commerce of Butler, Pa., is opposed to the plan to install a fire alarm system estimated to cost $75,000.

Warren, O., to Have New Station—Contracts have been let for the construction of a fire station in the East Side district of Warren, Ohio.

Elizabeth, Ill., May Buy Fire Apparatus—Although at a special election held in Elizabeth, Ill., the plan to purchase fire apparatus was defeated, sponsors of the movement still hope to obtain new apparatus by popular subscriptions.

East Lansdowne Has New Fire Station—A combined fire house and town hall costing $30,000 has been opened in East Lansdowne, Pa. A vaudeville show and a public inspection of the building were arranged for the opening day.

City Fire Houses to be Relief Stations—Each of the 970 firemen of St. Louis, Mo., has been asked to give $2, and fifty cents a month thereafter towards a relief fund. Under a plan announced by Chief Alt after a conference with district chiefs, each of the city fire stations will be relief stations for the destitute. Special motion picture shows have been arranged to raise funds for this relief work.

A NEW SOUND-PICTURE FEATURING FIRE FIGHTERS

"The Third Alarm" Portrays the Fire Service in a Very Commendable Light—Fire Department Technique Is Accurately Presented

DURING the past decade quite a number of motion picture films have appeared before the public, featuring in some way or other the work of the Fire Department. Several of them, however, were inaccurate in the picture they presented of the fire service.

In a recently completed sound-picture version of "The Third Alarm," a film which won considerable popularity eight years back, the Tiffany Production, Inc., of New York, has accomplished very good results in presenting that service in a very sincere and accurate manner.

"The Third Alarm" Story Is Built Around the Home Life of Firemen

Upper: Fire and police officer check-up on runaway orphans. Lower: Firemen escort the children of their late pal to the orphan asylum.

The operations of the fire department at a fire which takes place in the story are very realistic. This is probably due, to a great extent,, to the utilization of fully equipped municipal fire companies in producing the fire scene and the life of the men around the station, as well as at home, is accurately presented.

The plot is built around the home of a widowed fireman, the family including also his sixteen-year-old daughter and six-year-old son. This fireman, early in the picture, is killed at a fire, through a floor collapsing. He thereby leaves the two orphans with but two buddies in his fire company to care for them. These men find they are unable to be of any real assistance, as both are bachelors, and the city authorities therefore insist that the two children be sent to an orphan asylum.

The orphan asylum eventually takes fire, and the two youthful stars are rescued from what seems to be a hopeless situation.

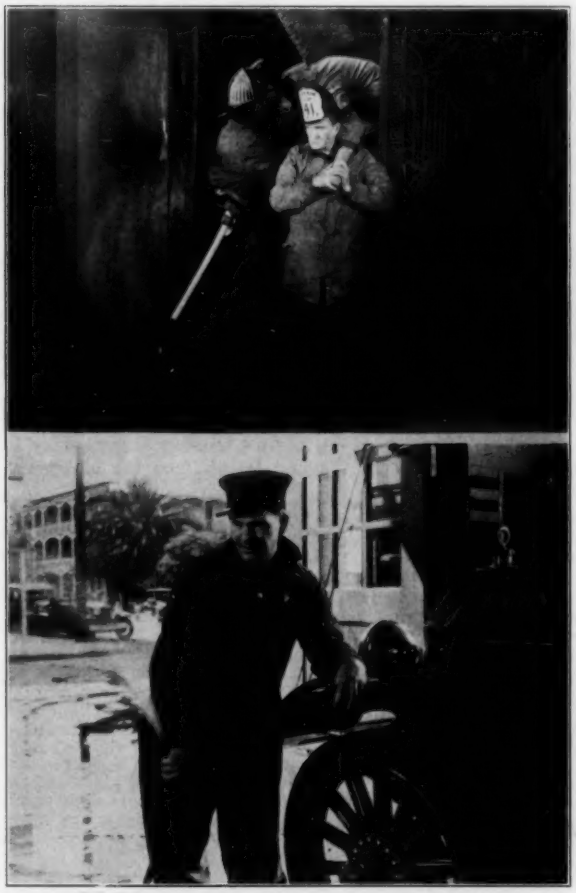
The orphan asylum fire, around which most of the action takes place, starts as a result of carelessness of a girl in the laundry. An electric iron is left turned on, and shortly afterwards the ironing board, with its combustible covering, is ablaze. Fire quickly spreads until the entire building is involved.

There was no loss of life, but ten small children and the fireman's daughter, the heroine of the story, were saved by daring and vigorous work on the part of the fire fighters, including the opening of a grilled door on the elevator shaft.

Anita Louise, the heroine, had reached safety when she went back to get ten children, who had been locked in a room on the third floor. Among them was her little brother. When they made for the stairway, it was aflame. Firemen, in a very professional manner, chopped a hole through a wall, and led the children to an elevator which Anita could operate. The car passed through two floors which were in flames, and to make matters worse, the cables gave way. The motor of the elevator pulled loose, and the steel cage crashed to the basement. The falling elevator burst a fire service main in the building and water rushed in while firemen tried frantically to get to the cage, which had fallen in such a position that opening the door was impossible. The cage was below floor level, and in a pit. Water rushed into the pit and was rapidly enveloping the imprisoned, when a steel line was finally hitched to a fire truck which, with the aid of three horses, sprung the elevator door open.

The picture should make many friends in the fire service, for it gives them more than a fair break, and in a manner which is very convincing.

It shows up the home life of the average fire department member in a very desirable light, and emphasizes that firemen, after all, are human beings, having their own worries and problems to face, not only in their line of work but from the domestic angle as well.



Fire Department Activities Realistically Portrayed.

Upper: Removing the body of an unfortunate member of the force, killed through the collapse of a floor. Lower: Station life well portrayed, including such routine work as scrubbing down the apparatus.

Fire Station Opened in Brookline

A new fire house designed along Colonial lines was opened in Brookline, Mass., at Boylston Street and Reservoir Road in the Chestnut Hill section, on December 8. It will serve as quarters for Engine Co. 4 and Ladder Co. 3.

The plans were drawn by the firm of Strickland, Blodgett & Law, and the Crane Construction Company, were the builders. Chief Selden R. Allen, of the Brookline Fire Department, personally supervised the work and his efforts resulted in the speedy completion of the house which is a model structure with every modern convenience for the comfort of the firemen..

It is of red brick two stories in height with cupola and pitched slate roof over the front section. The main floor has two large double doors for the passage of apparatus. There are four brass sliding poles and an enclosed watch room containing the Gamewell fire alarm gongs and Peerless puncturing tape register. In the rear is a gasoline supply pump with portable filler. The floor is of Swan treated concrete and the walls are of glazed tile. The cost of the building was $72,500.

The second floor contains a spacious recreation room, captain's room with private shower bath and two large closets, lieutenant's room, locker room, supply closet, lavatory, and dormitory. There is a large basement with entrance by a rear driveway from Reservoir Road, so that spare apparatus may be stored and minor repairs made. Racks are provided for drying hose. There is a kitchen, with gas range and dining room adjoining, with electric refrigerator.

There is a Univent heating system with oil burning boiler and hot water plant. The building is equipped with Tele-

New Fire Station Completed in Brookline, Mass.

chron electric clocks; metal desks and clothes lockers are provided. Four officers and twenty-two men are assigned to this house.

The apparatus consists of a new 85-foot American-LaFrance double banked aerial ladder truck, 750-gallon motor pumper, and combination hose wagon and booster pump, both of American-LaFrance make. The truck is fitted with a Morse ladder pipe and the wagon has a Morse gun, also a Baker portable wagon gun. The front doors on the apparatus floor are fitted with the Grether automatic closing device. The officers of Engine 4 are Capt. T. J. Burke and Lieut. T. J. Grennan and of Ladder 3 the officers are Lieut. R. E. O'Day and Lieut. P. J. Kirrane.

The formal dedication took place on the afternoon of December 8 when Chief Allen escorted the Board of Selectmen through the building. Architect Sidney Strickland turned the keys over to Charles F. Rowley, Chairman of the Selectmen, who in turn presented them to Fire Commissioner Willard W. Estabrook. Among those at the ceremony were Deputy Chief John B. McDonald, Police Chief Allen R. Rutherford, and Superintendent of Wires Eugene N. Davis.

HARRY BELKNAP.

Palmyra, Pa., to Receive New Apparatus—Palmyra, Pa., has decided to purchase a Hahn apparatus, a pumper and a ladder truck with two chemical tanks. They will replace two units that have been termed "antiques."

CORRESPONDENCE

Value of Department Discussion

To the Editor:

A concrete case of the advantage of discussions as part of the monthly fire company programs, took place here recently. Our town is small and there are not enough fires to give the men much practical knowledge in fire fighting. The theoretical discussions are about the only means of gaining such information.

On December 8, I was attending the Lions Club meeting and as I was addressing the members, a club member was called to the telephone. He then whispered something to another and both left. Later the foreman of our No. 1 Engine Company went out and I sensed that there was a fire. When I went to the telephone the operator told me that there was a fire in the Richmond Shoe Company and I ordered an alarm. Some one drove me to the place.

I saw that the fire could be handled with a booster tank if the apparatus arrived in time. I took a stand at the hydrant nearest the factory. When No. 1 Engine arrived I sent them to the south side of the factory and ordered them to use the booster. No. 3 Hose arrived a moment later and I ordered them to lay a line and keep the booster tank full. No. 2 Hose, the next to arrive, placed a line to the north side of the factory, but the company was ordered not to use it unless directed by me. No. 1 Ladder placed ladders on the north side. Men went inside to protect the stock with salvage covers.

Fifteen minutes after the apparatus arrived, the fire was out. Three sprinkler heads had let go but the salvage operations prevented a large water damage. The men remained for two hours to clean up, and when they left, other than some charred wood work and wet floors, there was no evidence of a fire.

It was the first real test that faced the department since it was organized in 1928. The factory superintendent was well pleased with the cleaning up process.

The firemen knew what to do. They had fought this fire at department meetings and all confusion was therefore eliminated.

Very truly yours,
CHIEF J. W. RANDLETTE.
Richmond, Me.

Chiefs Warned to Beware of "Fire Extinguisher" Salesman

To the Editor:

Some time ago a man driving a new Buick automobile came through here selling what is supposed to be a dry powder fire extinguisher. His method is to call on the Fire Department and demonstrate his goods which will work fairly well in his experienced hands. Then if he can induce the chief to try a few dozen boxes, he will take the order and say that if possible he is going to try and get some local merchant to stock the goods, and if the Chief wouldn't mind, the goods will come through this local merchant.

Naturally that would be all right with any one. With the Fire Department order in hand he looks up a local business house and shows them the order and has them call the Fire Department for verification. The salesman doesn't try to sell the merchant but tells him that the Fire Department wishes to be billed for the merchandise through his store. He gets a check from the merchant for an amount less than the price made to the department which of course leaves the merchant a nice profit.

The salesman then drives around to the fire station again, and if the Chief is not there, he unloads the goods which he had in his car all the time. He leaves town as soon as he cashes the check. The article is marked "Manufactured and Guaranteed by the American Fire Extinguisher Company, Atlanta, Ga."

Of course when I found the powder would not do the work, I wrote to the company and the letter came back for there was no such company in Atlanta. This department hasn't paid the local merchant and probably will not as we never feel like paying for something that is not as represented.

In order to protect the public from further trickeries of this man, I feel that this letter should be published in FIRE ENGINEERING. Any Chief who is approached by this man is urged to cause his arrest for obtaining money under false pretence, and to wire the Chief at New Castle, Ind. The salesman is about five feet seven inches tall, dark complexion and about thirty-five years old. He gave his name

as Mr. Cannon. He drives a Buick sedan. The powder he sells is put up in round pasteboard boxes well labeled in yellow and red.

GEORGE VAN ZANT.
Chief of Fire Department, New Castle, Ind.

BUILDING EFFICIENCY INTO THE VOLUNTEER FIRE DEPARTMENT

Chief Must Know His Business and Be Impartial—Men Must Be Well Trained—Politics Must Be Eliminated

By CHIEF H. M. TOPPING
Fire Department, Whittier, Cal.

THE greatest disadvantage of a volunteer Fire Department is that it is often commanded by a Chief who is appointed on account of his popularity with the City Council, the politicians, or other prominent citizens of his city. He may be the finest type of man, yet wholly unqualified for the position on account of his lacking fire prevention and extinguishing experience.

The Fire Chief of a volunteer department should have experience in fire department activities and be able to teach and drill his men in fire fighting and prevention.

Another great factor in the volunteer department which should be eliminated is politics; there is no greater agency to disrupt an organization. Let this creep in to your department and immediately it will cease to function.

Qualifications of the Chief

The qualified Chief must have the entire co-operation of each and every member of the Council and the different heads of city departments, as well as every member of his own department. In order to insure a successful fire fighting force, each and every member of his department should be appointed for his ability and not as a good favor from some other source.

The Captains, Lieutenants, should be appointed for their ability to command and qualifications as a fireman and not as a personal favor to some one for good fellowship.

The question may be asked: Why employ an experienced Fire Chief? This may be easily answered:

First: The Chief of a volunteer department or small paid department carries a greater responsibility than do the chiefs of larger departments. He has no assistant chiefs, division chiefs or battalion chiefs to aid him in his duties. When he arrives at the fire he must assume command, direct the movements of his company both in and outside of building, look for and cover up all exposures where the fire could communicate to adjoining property and safeguard the lives of his men from dangerous conditions. When he arrives at the scene of the fire and finds the blaze beyond control of his small equipment and men, he is not in a position to call additional apparatus or men, or, in fire department terms, pull a second or third alarm for more help. His entire department has responded on the first and only alarm and he must fight it out and do his best no matter at what disadvantage. Nine cities out of ten have only one company, when in justice to the chief, there should at least be two or more.

Handicapped by Poor Alarm Facilities

His alarm system consists of a telephone call, with no call boxes or other available alarm systems. Consequently, in the case of a fire in the early hours of the morning discovered by some one who happens to be passing, by the time he travels from a block to a mile to the fire station to give the alarm, the fire has grown from a small blaze to great proportions. Had the department been quickly notified, the fire would have been extinguished with a small loss, but owing to delay in reporting it, on account of no available phone, it has perhaps gained great headway, resulting in a serious loss to property and perchance loss of life.

Chief Should Be Capable of Instructing His Men

Second: The Chief should be an experienced fireman, qualified to drill his men in the care of apparatus and equipment, the use and disabuse of water, fire axes, pike poles and other fire equipment.

Let us take, for example, the undrilled and inexperienced fireman handling a line of hose: Place a charged line of hose in his hands and his thoughts are only to extinguish a fire. Say a fire is burning in the rear and inside of a store filled with merchandise on shelves, counters, etc. He immediately opens his pipe and rushes from the front of the store to the rear, knocking goods from shelves and wetting all merchandise in his road, so as to reach the seat of the fire, doing more damage with water than perhaps the fire would have done had it burned for some time.

On the other hand let us follow the actions of the trained and experienced man under the same conditions: As soon as the hydrant is turned on he opens his pipe to allow the air to escape, bringing the water to his pipe, which he then immediately shuts off. He then proceeds to force an opening in the store, takes a little dose of smoke and hot air, pulls his line to the rear or the seat of the fire and possibly extinguishes the blaze with a pin stream or half open pipe, doing as little damage with water as possible.

Proper Use of the Fire Axe

Now for one of our most valuable tools, yet mostly abused —the fire axe. Place a fire axe in untrained and inexperienced hands and it immediately becomes a tool of destruction, as, for example, a fire burning in a door or window casing, mop board and so forth. The inexperienced truckman immediately proceeds to chop through woodwork and plaster and all else in his way to get at the fire, while the experienced truckman would take off the casings with the blade of the axe, removing lath and plaster with the pick end, and extinguish the fire, doing little damage. Place the same men under the experienced Chief, who has drilled them in the use of the tools, and the effect will be far greater and the department will receive greater credit for its work.

Proper Drills for Volunteers

The volunteer departments usually have a meeting or drill at least once or twice a month, which usually consists of running out apparatus, leading out, hooking up to hydrant and passing water, timing the operation; or, in other words, each member trying to outdo the other fellow in making time. This, as far as it goes, is well enough; but in my opinion we overlook the important part of the drills. Would it not be far better if we changed this program? Would we not receive far better results and make for a better department if the drills consisted of the following evolutions: Placing ladders to roofs; carrying a charged line to roof: a dry line; strapping in a charged line; working a charged line from ladder; opening a roof; ventilating a building, through roof, skylight windows and doors; laying a reverse line to and from fire; amount of hose to lay at fire; when and how to use a two and a half inch line; and one and a half inch line; when and how to siamese lines in different lay-outs and advantages of so-doing; school of instructions as to back drafts; placing of proper ladders and distance from building; use of roof ladders; pike poles; pulling ceilings properly; use of chemicals; what to look for on inspections as to fire hazards; first aid treatment; use of life saving apparatus; and in fact establish a fire college on a small scale in your own department? This will keep the members of your volunteer companies interested and will be the making of a very proficient fire department.

Mistake to Combine Fire Department with Others

One of the common mistakes practiced in our small cities and towns is the combining of the Fire Department with the police, building, street or electrical inspection and placing the same under one head or Chief Officer. The most common combination and farthest apart is the combining of the Fire and Police Departments under the command of one head. The two departments are so different as to routine, that it is impossible for them to function as they should and give the same service for which the tax payers pay. For instance, the Chief of Police has more everyday routine business to attend than the Fire Chief, consequently one or the other of the departments is compelled to run itself, which usually is the Fire Department. When the two departments are combined, the Police Chief as a rule delegates the important duties of the Fire Department to some subordinate, who is unqualified in the first place to assume the duties, and the subordinate is usually employed on other city duties requiring a certain amount of time each day to complete. Consequently, his interest in his Fire Department becomes lax, and his Chief, having practically all his time occupied with his other department duties, naturally the Fire Department is in the discard until an alarm of fire happens. Then, with neglected apparatus and men, the department works backward and it receives a black eye from the local papers.

Fire hazards will have accumulated, commercial buildings will be erected without any member of the Fire Depart-

ment knowing just what fire hazards are contained therein —how the department can enter or leave the building in case of fire, location of gas shut-offs, electric switches, etc. All that goes to make up a complete inspection and safety operation of the department in case of need, and all the department should know about the building is completely lost.

Promotions Should Be by Merit Only

All promotions such as assistant chief, captains or lieutenants should be made for merit only and not on account of good fellowship, using no partiality in the selection. This is the only way to have harmony and co-operation from all the members of the department, as without co-operation a department soon begets stagnation, which in a short time spells dissolution.

A successful department is one commanded by a Chief who has the co-operation and goodwill of each and every member, who issues his orders firmly and then insists that they are obeyed.

One of the greatest disadvantages of a volunteer department is the time required for the men to reach the location of the fire after the usual alarm has been sounded from the fire station. It is a well-known fact that time is the essence of all fires, for if a company of drilled men is placed, say, three or four men on the apparatus which responds immediately upon the sounding of an alarm, they will accomplish more in less time than a dozen untrained men who have to respond from their homes or shops.

There Should Be No Divided Authority

Another disadvantage of a volunteer company is that there are too many officers. It is a common occurrence at a fire to hear: "Hey! Hit her here!" and then another voice: "Hit her there!" Then the men begin to pull in opposite directions, or, in other words, have a tug of war between them, with the fire still reaching for the sky. Take, on the other hand, the experienced Chief and company. The Chief has his plan of attack well in hand and issues his orders, and his trained men do not question such orders but obey them. Contrariwise, the inexperienced man thinks the Chief mistaken, and immediately uses his own judgment, never mindful of the result. The whole argument of this situation is organization, drill and experience.

Another disadvantage to the volunteer department is that usually the Chief is appointed or elected by the members. He draws practically no pay from the city and must devote his time in other channels for his livelihood. Consequently, he cannot give his department the time that it should receive for the betterment of the service. The same applies to the volunteers; they must earn their support in other occupations, therefore cannot devote the time that is necessary for the making of a proficient Fire Department.

From a paper read at the annual convention of the Southern California Fire Chiefs' Club, at Catalina Island, Cal.

Jenkintown, Pa., Lumber Yard Damaged

Buildings of the Beaver College were endangered when fire swept through five buildings of the lumber and coal yards in Jenkintown Pa., just north of Philadelphia, on December 2.

The blaze was discovered at 9:45 p. m. by a foreman of the company who lived opposite the plant. More than three hundred volunteer firemen responded to the general alarm which was sent to Glenside, Weldon, Roslyn, Edge Hill, Willow Grove, Horsham, Hatboro, Abington, McKinley, Elkins Park, Ogontz and Lamott. At one time plans were made to ask aid from Chief Ross B. Davis, of Philadelphia.

The yard was located along the tracks of the Reading Railroad, New York Division. A flurry of excitement rushed through the crowd when it was discovered that a 200-gallon gasoline tank had become heated to such a degree that firemen believed it might explode. Streams of water successfully cooled the tank to below the danger point.

The Philadelphia Second Alarmers were asked to respond with the Coffee Wagon. Arriving at the fire, members of this organization served hot coffee and chewing tobacco to the volunteer firemen.

The fire loss was estimated at between $175,000 and $200,000.

EDWARD H. SPRANGERS.

Corona, Cal., to Buy Apparatus—Corona, Cal., has invited bids for the purchase of fire apparatus.

Bridgeport Firemen Supply Free Wood

To supply needy families with firewood during the present cold weather, members of the Bridgeport, Conn., Fire Department are spending every minute of their spare time furiously sawing and chopping huge telephone poles, railroad ties and old logs into firewood. A power saw was installed recently in the yard at the rear of No. 6 Fire Station on Barnum Avenue through the courtesy of a Bridgeport construction firm.

Firemen who are on the off-platoon transport the poles from various parts of the city to Station No. 6. After the wood has been cut into stove lengths by the men on duty, the men off duty deliver the wood to the homes of the poor families around the city. At this writing over eight hundred cords of wood have been delivered. Letters of praise for the interest that the firemen at Bridgeport have taken during the present unemployment situation have been received from many of the families who received wood. The local newspapers also gave high praise to the fire fighters through their editorial columns for the work accomplished by the men.

Bridgeport Firemen Find Method to Help the Needy

THOMAS F. MAGNER.

Dunigan Reelected Westport Chief

Henry J. Linxweiler was elected president of the Westport, Conn., fire department at the annual election of officers held at the Central fire station on December 16. Francis P. Dunigan, who has been chief of the department for some time past and whose untiring efforts have resulted in the Westport department being rated as one of the best volunteer departments in Connecticut, was unanimously re-elected as department chief while Joseph Feeney and Joseph Meillo were elected first and second assistant chiefs respectfully in the only contested positions. Report of the work of the Westport department for the year was made to the members in attendance at the annual meeting.

Oklahoma City Seeking Oil Fire Prevention—Oklahoma City, Okla., is considering means to avoid the fire hazard each time a new well is brought into service in the oil field. The movement has been started by representatives of the oil companies.

A Case of Hard Luck for Sugar Creek, Ohio—The antiquated apparatus of a fire company in Sugar Creek, Ohio, was called out to answer a fire alarm. On the way three tires blew out and the crew had to stop and make repairs. When they arrived at the fire, it had nearly burned itself out. The company now wants new apparatus.

DO YOUR FIRE ORDINANCES MEET YOUR FIRE HAZARDS?

Importance of Adequate Local Laws to Handle All Kinds of Violations—Personal Responsibility for Fires

By JOHN G. GAMBER
Former State Fire Marshal of Illinois

IF we are ever going to get anywhere, we have got to get to the point where we will hold the fellow who is responsible for the preventable fires for damages that may occur to the adjoining property as well as the expense for the use of the Fire Department. He has no right to demand the use of the fire equipment of a city on account of his carelessness and the sooner we get rid of that fellow the better it is going to be for all of us.

Now, how about your community? Are your ordinances adequate and up to date or is your city one of the many which has no fire prevention ordinances worthy of the name? If you have ordinances, are you enforcing them? The causes of fires are well known and the remedies are equally known. Practically every cause of fire can be controlled by adequate local ordinances, if they are enforced.

The situation in New York state is not unlike that in Illinois, that the local communities are woefully lacking in fire prevention ordinances. Some have none at all or what they have are obsolete. Very few of them have a really adequate code or ordinance. But the shame is lack of enforcement.

What is the situation in your own community? Ask yourself that question. Are you chiefs working at every opportunity to improve your ordinances? Are you letting things ride as they are and trusting that you will be able to hold the fire in check if it should start?

Especially let me mention to you the oil burner which by so many today is termed as a hazard, and which in fact is no more a hazard than the electric light which only a few years ago we were greatly agitated about and finally adopted safe guarding methods and placed same under control. It was after that that we realized how much safer electricity for lighting purposes was than the old kerosene lamp or tallow candle and how much more convenient. The same will apply to the properly installed oil burner.

Reasonable Ordinances Needed

What we need first is a reasonable ordinance. Don't wait until you have had a fire occasioned by a poorly constructed, poorly installed burner manufactured by some wild cat concern whose sole purpose is to sell oil burners during the month of July, when all oil burners work well, but when December comes around and you need heat you find it is not efficient and you go to look for the fellow who sold it to you, you find a sign on the window "Moved."

I have always advocated it is much easier to regulate than to eradicate. Oil burners have done more to reduce fire loss in our homes than any other one thing that I know of. How many times in the past during this time of the season have you been called out and you find the cause of the fire was sparks on the roof, burning out of flue, overheated flues caused from burning soot, hot ashes thrown against wooden partitions and numerous other similar causes.

When you find hazards in the property of one of your business men, are you willing to take time to discuss the matter with him earnestly, so that you can convince him of the necessity of complying with your orders?

Do City Officials Cooperate?

How about your mayor and city officials? Do they make pretty statements during Fire Prevention Week and then wink at violations? Do they back you up when you ask Mr. Prominent Citizen to clean up his property or do they pat him on the back and tell him to let it ride? When you ask for necessary things to make your department more efficient, do they give you what you need or do they put you off?

Bear in mind that in every city throughout the United States, the same is true in your state as it is in every other state, if there are any retrenchments in the city affairs on account of lack of funds, the Fire Department is one of the first that is attacked. Your quota is cut down, your equipment must naturally suffer, your man power is cut down if need be, instead of being increased as it should be. Do you and your men receive equivalent salaries to that paid to the Police Department? How about Mr. Prominent Citizen; does he occupy posts of honor on your civic committees and shout loud for fire prevention when you are observing Fire Prevention Week, and then maintain hazards in his property instead of spending money to remove them?

Some of our prominent citizens are like the person who sits in the front seat in church on Sunday and skins the people the rest of the week. You have to overcome, in the first place, the human element of carelessness, which is so strong in most of us. When you want an ordinance passed or conditions improved, it hurts someone's pocketbook. The pocketbook of the ordinary man is his nerve center. A touch brings a howl. Most of us are strong for principle, if it doesn't cost anything, but if it costs money, well, that's something else again. After a man howls, he begins to pull wires and use influence. You have all that to contend with.

The Bane of Politics

There are politics in every town. Politics mean wire pulling. Sometimes they mean that fire departments are governed entirely by politics.

We are living in a commercial age. If progress hurts business or interferes with its prerogatives, business is likely to fight progress. You all remember the conflagration at Berkeley, Cal., a few years ago. Wooden shingle roofs spread the conflagration. The City Council passed an anti-wooden shingle roof ordinance following that fire so that the city would be safe from the menace in the future. What happened? The lumber interests got busy and secured a referendum on the question. They conducted a vigorous campaign and the result was that the citizens whom the ordinance was going to protect, defeated it. It makes me wonder whether American citizens are sincere with themselves.

Person Who Has Careless Fire Should Be Punished

Let us consider for a moment how terrible fire is. Think of the agonizing death of fifteen thousand people a year. Think of the suffering, privation and loss which follows the destruction of property by fire, and yet, when a man has a fire through his own carelessness, people usually sympathize with him and hope he has enough insurance to reimburse him.

It ought to be otherwise. Supposing he were ostracized by his friends and refused accommodation at hotels and looked upon as a public enemy, as he is. And why not? Fire carelessness is criminal, even though the statute books do not at this time make it so. Any fire is likely to be the starting point of a conflagration and endanger precious lives Somehow we must bring public sentiment around to this sort of a view on fire carelessness. There are few engaged in the fight for fire prevention. The odds are against us. Will we be engulfed by this spirit of indifference which is all around us or will we assert our courage and battle until we win? Have we the courage of our convictions? I say we have the courage if we are sincere in the matter. I have faith absolutely in the firemen of this country. Let there be no question about their sincerity but let us also insist on sincerity from others who shout and preach fire prevention, and then practice something else.

An advertising slogan caught my eye the other day. It is a slogan which is used quite effectively by a large jobber. This is it: "There is no substitute for sincerity" and I know of no better slogan to close with than that!

(Excerpts from a paper read before the Fire Chiefs Emergency Plan of Westchester County, N. Y.)

Pe Ell, Wash., Buys Apparatus—Pe Ell, Wash., has purchased Howe fire apparatus.

Nacogdoches, Tex., Buys Pumper—A 500-gallon pumper has been purchased by Nacogdoches, Tex. It will be provided with an 80-gallon booster tank.

Vancouver, B. C., May Provide Fireboat—The Harbor Board of Vancouver, B. C., Canada, is considering a fireboat for the protection of Burrard Inlet.

More Firemen for Asbury Park, N. J.—As the result of the two-platoon system which will go into effect on January 1, eighteen firemen will be added in Asbury Park, N. J. Firemen will be paid $1,800 a year. Men selected will be classed as second grade firemen.

Chief Jones of W. Springfield to Retire—Due to ill health, Chief Elam B. Jones has tendered his resignation as head of the Fire Department in West Springfield, Mass. Chief Jones is sixty-two years old and has been with the Fire Department for thirty-eight years. He has been head of the department for twenty-seven years.

The Round Table

(*Continued from page* 1094)

battalion chiefs to take a course of instruction in modern fire fighting in the offices' training school in New York.

When he completed the course he received a diploma of fitness without any cost to the city. I then organized a school of instruction under the able supervision of Battalion Chief Bell. The department was divided into sixty-four classes, receiving instruction in the handling and use of all tools, appliances, special equipment and hydraulics.

The chemist of the Bureau of Combustibles and Fire Risks lectured on many occasions to the officers of the department on explosives, chemicals and combustible material. The Superintendent of Repairs gave several lectures and demonstrations on the running and care of motors. Members of the Bureau of Combustibles and Fire Risks were instructed in making inspections of fire hazards in factories and other classes of property.

Our school of instruction in the prevention of and extinguishing of fires has brought our department to a high degree of efficiency. I have received many letters from chiefs in neighboring cities requesting the privilege to send officers to take courses in our school of instruction and modern fire fighting.

Herman J. Amish, Chief, Iowa City, Iowa: City sends one man to the short course held at the Iowa State College at Ames, Iowa, paying all expenses. I am sorry it is not possible to send more men to take these courses as I approve of them very strongly.

The man who attends these short courses serve later as a local instructor.

L. B. Rapp, Chief, Lynchburg, Va.: Our city pays expenses of men attending short fire courses. One man was sent during 1929 to be trained to fill vacancy in rank of assistant chief.

I have not had very much experience in sending men to training schools, although I thought it best to have at least one man that was properly trained so that he could instruct the members of the fire division.

W. R. Price, Chief, Springfield, Mo.: City sends one man and sometimes two men to some city to attend a short fire course. These men are placed in charge of our drill school and improved methods of fire fighting taught to all the boys.

The results obtained in this manner have been very satisfactory.

Louis Sacco, Chief, Hudson, N. Y.: As this is a volunteer department, the chief is the only member who can enter an expense claim for attending fire courses.

For the above reason, together with the fact that the men cannot afford to lose time from their work for school purposes, explains why none of our men have been sent to fire training classes.

As chief I employ my knowledge and experience in fire fighting to instruct and improve the members of my department.

R. M. Milam, Chief, Huntsville, Ala.: We have never sent any men to a fire college because there is none located in this section. I believe there is a school opening in Mississippi where firemen may be sent for training, and if such develops, we hope to send one or more of our men each year.

Chas. E. Tovee, Chief, Chico, Cal.: At present we are unable to send men to a fire college. I am heartily in favor of such courses as they teach the men how to put out fires before they start and makes them more efficient when a fire does start.

D. C. Fahy, Chief, Penns Grove, N. J.: Our department is a volunteer one and with a minimum number of fires it does not pay to send men to fire schools.

M. D. Googer, Chief, Decatur, Ga.: Decatur has but a volunteer fire department at present and under these conditions we do not send any men to the state university.

E. A. McGranahan, Chief, Wheeling, W. Va.: City does not pay expenses of men attending fire colleges. One of my men attended the Pittsburgh, Pa., fire school and paid his own expenses. He was greatly benefited by the instruction.

Harry W. Parker, Chief, Newark, N. Y.: City does not provide funds to send men to fire schools, and therefore no one attends such classes. Until the city provides in their budget to take care of such expenses we will have no results.

J. I. Fetters, Chief, Mishawaka, Ind.: No satisfactory course for firemen is offered as yet for our locality.

The question of a short fire course is being considered by the Indiana Fire Chiefs' Association and will no doubt be solved shortly.

I presume the city would pay the expenses of men attending such a course.

John Lahm, Chief, Madison, Wis.: The city pays the registration fee, and as the school is held in our city there is no other expense. Our men have 24-hour shifts and attend classes on their days off.

Donald J. Rayburn, Chief, El Dorado, Kan.: The city of El Dorado pays all expenses of two firemen and myself to the fire school each year.

These men are required to keep notes on all work covered in the school and act as local instructors after returning home.

E. F. Sullivan, Chief, Syracuse, N. Y.: As we have our own school of instruction for firemen none of our men are ever sent to universities or other fire schools.

S. L. Rodger, Chief, Olean, N. Y.: City pays expenses of men attending short fire courses. Seven of our men have so far been sent to Buffalo, N. Y., to attend such sessions.

J. G. Sarran, Chief, San Antonio, Tex.: None of my men is sent away to fire colleges or universities because we have had our own school of instruction in the fire department since 1915.

G. M. Raines, Chief, Vinita, Okla.: City pays my expenses while in attendance at short fire courses, and I serve as instructor to my men. About the only way to improve on present results is to have more fire training courses.

E. C. Beatty, Chief, Tuscaloosa, Ala.: I have never been able to send any of my men to fire training classes as there is no school in this vicinity which provides such courses.

Karl R. Adams, Chief, Alma, Mich.: City does not provide funds to send men to universities to attend fire classes. The only schooling along this line which my men have had was provided through an engineer of the Michigan Inspection Bureau.

J. E. Saulnier, Chief, North Adams, Mass.: There being no school at which fire classes are held in this vicinity, none of my men has been able to obtain such instruction.

D. E. Mahan, Chief, South Amboy, N. J.: My department is all volunteer, consisting of workers who are unable to attend classes at fire colleges. For the past six months we have been considering plans by which to instruct the men.

Elmer Keith, Chief, Corsicana, Tex.: City pays expenses of men attending classes at fire schools. Men upon returning from such courses usually act as instructors to the remainder of the department members. About the only improvement to be made on the present courses is instruction in use of equipment in cases where apparatus is very limited.

Fire Wrecks Two Nashville Buildings

Fire of undetermined origin that had been smouldering for some time broke out on the top floor of a five-story furniture house in Nashville, Tenn., shortly after daybreak, and spread to an adjoining furniture house wrecking two floors and it completely destroyed a vacant three-story building. The total damage has been estimated at $150,000.

Shortly after the firemen arrived and began playing hose streams on the furniture building, an explosion wrecked the vacant building next door. Firemen then had two blazes to contend with. The explosion is believed to have been caused by gas which seeped through from the blazing structure. The furniture houses were stocked with merchandise for the Christmas holiday and therefore, the loss was considerably greater.

Chief F. B. Moore who was among the first to arrive was in charge of the fire companies.

Fire House Opened in Mauch Chunk, Pa.—A new fire station costing $15,000 has been opened in Mauch Chunk, Pa.

Williamsburg, Ohio, to Buy Apparatus—The village of Williamsburg, Ohio, is planning to purchase fire apparatus.

Fire House Opened in Chevy Chase, Md.—A new fire station has been opened in Chevy Chase, Md.

American-LaFrance Distributing Calendar—A large attractive calendar, printed in two colors and showing fire apparatus speeding to a fire, is being distributed by the American-LaFrance and Foamite Industries, Inc., Elmira, N. Y. The calendar pad is large and the numbers are readable at a considerable distance.

FIRE PREVENTION ORDINANCE FOR CITIES AND TOWNS

It Establishes Bureau of Fire Prevention—Prescribes Regulations for Hazardous Materials and Processes

(*Continued from last issue*)

THE following Fire Prevention Ordinance has been prepared by Engineers of the National Board of Fire Underwriters and is recommended by that organization for adoption by cities and towns. While it is not expected that in all cases smaller cities will find need for an ordinance of such length, it is recommended by the Board that a complete set of regulations be adopted in all cases, for even though there may be no immediate need of regulation of a particular hazard, every growing community is sure to have these hazards introduced sooner or later, and it is better to be prepared for them than to develop unrestricted and then try to regulate them. The ordinance will be published in its entirety serially in FIRE ENGINEERING. *Following is a continuation of Part 9—Flammable Liquids:*

957. *Material of Above Ground Tanks.*

Tanks (including tops) shall be constructed throughout of open hearth steel or of wrought iron of a thickness in accordance with the following requirements. For liquids of 35° Baumé or heavier, tanks may be constructed of concrete.

980. *Deliveries to Storage Tanks.*

Deliveries of flammable liquids of Class I and II, where practical, shall be made directly to the storage tank through the filling pipe by means of a hose or pipe between the filling pipe and barrel, tank wagon or tank car from which such liquid is being drawn.

981. *Pump Required.*

Except as permitted in Section 983, flammable liquids shall be drawn from tanks by pumps so constructed as to prevent leaking or splashing, or by some other system approved by the chief of the Bureau of Fire Prevention, with controlling apparatus and piping so arranged as to allow control of the amount of discharge and prevent leakage or discharge inside the building by any derangement of the system. When inside a building, the pump or other drawing-off device for Class I or II liquids shall be located on or above the grade floor, preferably near an entrance or other well-ventilated place.

982. *No Gravity Feed Permitted.*

Except as permitted in Section 983, no tanks, drums, nor other containers inside a building, or discharging inside a building, shall be provided with a faucet or other bottom-drawing device which will permit the gravity flow of liquids inside the building. Pipes shall not terminate at any point lower than the level of source of supply.

983. *Exceptions to Sections* 981 *and* 982.

The Chief of the Bureau of Fire Prevention may permit the storage and gravity flow of flammable liquids in connection with domestic oil burning equipments, in refineries, and in manufacturing and jobbing plants where the nature of the manufacturing process requires such storage and flow, and also the storage and gravity flow of commodies of Classes II and III in stores, plants and establishments, where the nature of the liquid will not permit pumping; provided that the contents of tanks holding Class I liquid shall be sufficient only for one day's operation and such storage shall be in a room in accordance with Section 915.

984. *Fuel Oil Equipments.*

An approved domestic type oil burner may be supplied by gravity from two connected inside or outside storage tanks, provided neither tanks exceeds 275 gallons capacity and they are connected to the fuel line by approved 3-way valve.

NOTE: Requirements for the installation of equipments for the use of flammable liquids as a fuel under boilers, furnaces, kilns, ovens and other apparatus are covered in this ordinance under the following Sections: 904, 907 and 908: Permits and approvals; 913, 914, 952, 953, 954, 956, 957, 958, 960, 972 and 980: locations, construction and equipment of storage tanks; 973, 974, 976, 977, 981, 983, 985: valves, piping and pumps.

985. *Relief Valves for Pumps for Engines and Fuel Oil Equipments.*

In systems using pumps to supply internal combustion engines or fuel oil burners a pressure relief valve shall be installed in supply line to engines or burners and so arranged as to return surplus oil to the supply tank.

986. *Tank Trucks.*

Tanks shall be constructed of open hearth or blue annealed steel, or other suitable material of a strength equivalent to the following table:

Capacity	Minimum Thickness of Steel
Up to 500 Gallons	14 gauge U. S. Standard
501 to 1,000 "	12 " "
1,001 to 3,000 "	10 " "

Heads shall be bilged or corrugated, or shall be 2 gauges heavier. Joints shall be welded, riveted, riveted and welded, or riveted and brazed.

Each compartment of the completed tank shall be tested and proven tight at 5 pounds minimum pressure. Fill openings shall be 4 inches minimum diameter.

Tanks in excess of 600 gallons capacity shall be subdivided into compartments, none of which shall exceed 600 gallons capacity.

Each tank compartment shall be provided with a suitable operating vent, and in addition thereto venting facilities of such size and capacity as will prevent rupture of the tank from such internal pressures as may be created by exposure fires.

All draw-off valves or faucets shall have discharge end threaded or otherwise so designed as to permit of tight connection with hose extending to fill-pipe.

Every tank truck shall be provided with properly attached rear steel bumpers. The rear bumpers or chassis extension shall be so arranged as to adequately protect the draw-off valve or faucets in case of colision.

Each compartment of a gravity discharge truck tank shall be equipped with a reliable and efficient shut-off valve located inside the shell of the tank in the compartment outlet, and except during delivery operations such valves shall be automatically kept closed, or shall be so interlocked with delivery operation that it will be mechanically closed when delivery operations are completed.

The operating mechanism for such valves shall be provided with a secondary control, remote from the tank filling parts and discharge faucets for use in event of accidents or fire during delivery operations, and such control mechanism shall be provided with a fusible point which will cause valves to close automatically in case of fire.

In every case there shall be provided between the shut-off valve seat and discharge faucet, a shear section which will break under strain and leave the shut-off valve seat intact.

Tanks, chassis, axles and springs shall be metallically connected. Tank trucks shall be equipped with drag chains long enough to reach the ground.

During the filling operation electrical contact shall be maintained between the fill pipe and the tank truck.

The foregoing provisions shall also apply to the construction and operation of trailers and semi-trailers. All trailers shall be firmly and securely attached to the towing vehicle by means of suitable draw-bars, supplemented by safety chains.

Every trailer shall be equipped with a reliable system of brakes with reliable provisions for operation from the driver's seat of the vehicle drawing it.

Each trailer shall be provided with side lights and a tail light.

987. *Containers Painted Distinctive Colors.*

Portable containers for Class I and II liquids shall be painted red (entire container or conspicuous band or stripe) and be conspicuously lettered in black, "Dangerous—Keep Lights and Fire Away." It shall be a misdemeanor to keep or place the above mentioned liquids in containers other than those marked as designed, or to use the containers for any other liquids or substances than those specified or fail to keep their exterior clean so that coloring and lettering are easily distinguishable.

988. *Refineries.*

No permit shall be granted for the establishment of a new plant or an addition to a plant for refining, distilling or condensing petroleum and natural gas within the limits of the city until after a survey has been made by the Chief of the Bureau of Fire Prevention and an investigation made of all hazardous conditions connected therewith. If there are no schools, churches, hospitals or public halls within 300 feet, and no other buildings than those of the plant within 150 feet of the proposed distilling or condensing plant, and other conditions are consistent with the spirit and intent of this ordinance, the Chief of the Bureau of Fire Prevention shall grant a permit for the location desired; provided, also, that a guarantee to maintain an open space 150 feet on all sides shall be given by the applicant.

(*To be continued*)

Rural Apparatus Delivered to Monticello—Special apparatus for fighting rural fires has been delivered to Monticello, Ind. The apparatus is mounted on a Ford chassis and has four 40-gallon chemical tanks.

FIRE DEPARTMENT ACTIVITIES

Harrisburg, Pa., May Buy Ladder Truck—Harrisburg, Pa., is considering the purchase of a ladder truck.

Aptos, Cal., Forms Fire Department—A fire department has been formed in Aptos, Cal.

New Apparatus Delivered to Carmel, Cal.—New Fire apparatus has been delivered to Carmel, Cal.

Fire House Opened in Memphis, Tenn.—A new fire station known as No. 18 has been opened in Memphis, Tenn.

Pumper Delivered to River Forest, Ill.—A 1,000-gallon Ahrens-Fox pumper has been delivered to River Forest, Ill.

Fire House Opened in Salisbury, Md.—A new fire station has been opened in Salisbury, Md.

Sullivan, Ind., Has New Chief—P. Cozetto has been named Chief of Sullivan, Ind., to succeed Roy Bennett, deceased.

Hesston, Kan., Organizes Department—A fire department of fifteen members has been organized in Hesston, Kan.

Department Formed in Catlettsburg, Ky.—A volunteer fire department has been formed in Catlettsburg, Ky., consisting of twelve members and Gordon Kennedy as Chief.

E. Providence, R. I., to Construct Station—East Providence, R. I., voted to proceed at once with the construction of a fire station in the Rumford section.

Pumper Purchased for Goose Creek, Tex.—A combination pumper and chemical car has been purchased by Goose Creek, Tex. Delivery will be made early in February.

Department to be Organized in Shrewsbury—Steps have been taken in Shrewsbury, Pa., to organize a volunteer fire department.

Monticello, Ind., Buys Fire Apparatus—Fire apparatus for out-of-town calls has been purchased by Monticello, Ind. It will be maintained by the township.

Caledonia, Minn., Buys Apparatus—New fire apparatus has been purchased by the Fire Department of Caledonia, Minn.

Guthrie, Okla., Considers Improvements—Guthrie, Okla., is considering the erection of a new fire station and the purchase of fire equipment.

Bethesda, Md., to Receive New Equipment—The Fire Board of Bethesda, Md., has appropriated $23,000 for the purchase of new fire equipment.

Battery on Apparatus Stolen—A thief entered a fire house in Myerstown, Pa., and stole a new battery from the fire apparatus, and left an old one in its place.

Glendale, Cal., Adopts Civil Service—The council of Glendale, Cal., has adopted an ordinance providing for civil service for the Fire Department.

Grays Harbor, Wash., Wants Fireboat—A movement has been started in Grays Harbor, Wash., to acquire a fireboat for the protection of waterfront property.

Fire Survey Made of Muskogee, Okla.—A fire survey of Muskogee, Okla., has been made by engineers of the National Board of Fire Underwriters.

New Fire House Opened in Hempstead, N. Y.—A new fire station has been opened in Hempstead, N. Y. Refreshments were served after the opening ceremonies.

Orange, Mass., to Have Fire Alarm—An appropriation of $3,100 was made for the installation of a Gamewell fire alarm system in Orange, Mass.

Plans Drawn for Signal Hill Station—Plans have been drawn for a new fire station to be erected in Signal Hill, Cal. No definite action has been taken.

Fire Apparatus Sent to Dansville, Pa.—A pumper equipped with chemical and booster tanks has been delivered to Dansville, Va. It has four chemical tanks of 35-gallon capacity in addition to a 150-gallon booster tank.

Waco, Tex., to Erect a Drill Tower—By June, a drill tower will be erected in Waco, Tex., in accordance with the state law that requires a drill tower in every city of 50,000 population and over.

Fostoria, O., to Have Full Time Chief—A full time fire Chief will be appointed in Fostoria, Ohio. The salary will be $1,800 a year and the appointee will be selected by civil service examination.

Plans Ordered for San Diego Station—Plans have been ordered by Chief Louis Almgren for a fire station in the Pacific Beach section. Land for the building has already been acquired.

Altoona, Pa., Has New Fire Alarm System—A new automatic fire alarm system has been placed in operation in Altoona, Pa. The fire alarm system consists of 135 fire alarm boxes.

San Leandro, Cal., to Give Outside Help—Chief Joseph Peralta of San Leandro, Cal., has announced that as an act of courtesy, the Fire Department would respond to calls outside the district.

Ravenna, O., Wants Ladder Truck—Chief Andrew Batsch of Ravenna, Ohio, is trying to have the municipality purchase a ladder truck. The purchase has been recommended by the Ohio Inspection Bureau.

Fire Fan Dies at Age of 92—A fire buff ninety-two years old, recently died in Scotch Plains, N. J. Last summer fears for his safety led the Town Council to issue an order forbidding him to ride on the fire apparatus which he had done every time the alarm sounded.

Woodmere, L. I., Chief Refuses New Term—After serving as head of the Fire Department in Woodmere, N. Y., for five terms, Chief Robert J. Murray has declined a renomination. He believes that a Chief should not serve too long.

New London, Conn., May Erect Station—The city council of New London, Conn., is considering the proposition to erect a central fire station in order to give work for the unemployed. Some opposition has developed to the suggestion.

Victoria, B. C., to Buy Fire Apparatus—Victoria, B. C., Canada, is considering a $40,000 loan to finance the purchase of fire apparatus. The city is planning the purchase of two combination pumpers and a service ladder truck equipped with a forty-gallon chemical tank.

Chief Meunier of E. Hartford Feted—A testimonial dinner was tendered Chief Frank Meunier of East Hartford, Conn., to mark the fifteenth anniversary of his appointment as head of the department. The paid firemen and the call men presented him with a pen and pencil set.

Benton Harbor to End Rural Runs—With the exception of Fair Plain, the city commission of Benton Harbor, Mich., has decided to end all rural runs. Fair Plain was given notice of the change of policy so that it will be able to obtain its own apparatus within ninety days.

Hartford Wants New Fire Station—The Fire Board of Hartford, Conn., is seeking an appropriation of $85,000 for the erection of a new fire station. Included in the new budget is an item for $51,700 with which the board would purchase four new pumpers.

Newark, N. J., to Have New Fire Alarm Plan—A new system of fire alarm signals will be instituted in Newark, N. J., shortly after January 1. Numbers of the present 710 fire alarm boxes will be completely revised. Work on the new plan was started two years ago by the late Commissioner Brennan.

Pension Ordinance Introduced in Tacoma—An ordinance for a new firemen's pension system has been introduced in Tacoma, Wash. The measure provides for a board of administration to consist of two members of the city council, two city employees and a fifth member to be selected from the employees or beneficiari. It will be financed by contributions from wages and from the money that previously was paid to the industrial insurance fund.

One County Fire District Urged—Norman C. Johnson, Chief of the Los Angeles County Fire Department, has urged that a fire protection district be formed for the entire county with taxes levied equally on unincorporated areas, centralization of equipment with paid men to care for it, and equipment for fighting brush fires to be located in outlying communities. This plan was suggested at a meeting of the Orange County Firemen's Association held in Placentia, Cal.

PROPOSED IMPROVEMENTS

Yarmouth, Mass.—At special town meeting it was voted to appropriate $17,000 for purchase of fire apparatus and equipment.

Orfordville, Wis.—Plans are under way for purchase of a community fire truck. Town boards of Newark, Plymouth, Avon and Spring Valley and Orfordville interested.

Waukesha, Wis.—City Council voted to purchase Peter Pirsch truck for fire department at $6,000.

Hudson, N. Y.—Common Council called special taxpayers meeting to decide whether city shall issue $12,500 bonds for purchase of 750 gal. pumper.

Nichols, Conn.—Reports state as public meeting is to be held to consider purchase of new equipment for the local fire department. Channing Miller, Chief.

Kamiah, Idaho—New volunteer fire department has been organized here with Guy Dissmore as chief.

Pittsfield, Mass.—City considering erecting the two proposed bungalow type fire stations next spring.

Kansas City, Mo.—Subcommittees have recommendations approved by Public Safety Committee of Ten Year Plan Organization for $1,350,000 bond issue; $160,000 fire stations; $730,000, extension to fire alarm system; $110,000 hose and similar equipment, $350,000 new fire apparatus.

Fairfield, Calif.—City Council to call election in the near future to vote on bonds for purchasing new piece of fire apparatus, according to reports.

Ankeny, Iowa—Town Council started movement for purchase of community fire truck, according to reports.

Los Angeles, Calif.—Funds for construction of five branch fire stations in the Palms, Mar Vista and Venice districts are asked in report filed with city council, by R. J. Scott, Chief of Fire Dept. Estimated cost $145,000.

Position Wanted

Delivery Engineer with 12 years' experience desires position as Master Mechanic with Fire Department anywhere in United States. References furnished from American LaFrance and Ahrens-Fox Fire Engine Companies. I desire permanent location because of family responsibilities. I am 34 years of age. Address: Box 325, care FIRE ENGINEERING, 24 West 40th St., New York City.

12-10, 24-1-7

Charlotte Makes Fire District Survey

The largest number of inspections ever made in a single inspection period has just been completed by the Fire Prevention Bureau of the Charlotte, N. C., Fire Department, Captain H. C. Kissiah, Bureau Director, announced.

During the inspection period which began November 15, 2,255 inspections, the largest in the history of the department were made.

Every building in the territory bounded by the Southern Railway on the west, Tenth Street on the North, Alexander Street on the east and Stonewall Street on the south, was visited by firemen, who were on the lookout for conditions which might produce a fire.

This was the first time that every building in the fire limits had been inspected. Heretofore residences within this area have been passed up, but this time not a single building was overlooked. And as a result business buildings, churches, hospitals, private residences, apartments, garages and filling stations were inspected.

As a result of the inspection, firemen found eighteen places where pennies had been put behind blown electric fuses, thirty-two places where fuses had been rebridged, twenty-one places where trash and rubbish had accumulated in basements and back yards, nineteen places with defective flues, and fifteen places where no mats had been used beneath stoves.

Most of the hazardous conditions were found in residences, which had not previously been inspected, Captain Kissiah said. In the business buildings, where recommendations for improvements had been previously made, conditions were generally all right. At practically all places, a fine spirit of co-operation was shown by the business owner or householder.

Chief Hendrix Palmer, in a discussion of the effectiveness of the regular inspection said, that only eight alarms have come from the business district since early October. Several of these fires, he explained, were due to carelessness such as the dropping of a lighted cigarette or the leaving of an electric iron with the current turned on.

D. G. SPENCER, JR.

Spencer, W. Va., May Buy Apparatus—Spencer, W. Va., is considering the purchase of fire apparatus.

Rake, Ia., to Erect Fire Station—The council of Rake, Ia., voted to erect a fire station.

Boston May Erect Additional Stations—Boston is considering the erection of two new fire stations if the department can obtain an appropriation of $70,000.

Ringer Smoke Ejector Now on Market

The smoke ejector designed by Chief Charles W. Ringer of Minneapolis, Minn., and exhibited at the Winnipeg convention of the International Association of Fire Chiefs, is now being marketed by the Peter Pirsch & Sons Company, of Kenosha, Wis.

The machine has been doing regular service for several years in Minneapolis and Chief Ringer states that he does not see how he ever got along without it. The smoke ejector in use in Minneapolis has a heavy Sturtevant fan of the multivane design direct driven by a Model A Ford engine governed at 1250 r.p.m. It is equipped with four 14 x 10-inch flexible steel suction tubes with several door and window covers made of heavy wire netting and asbestos cloth and provided with an opening to receive the flexible tube.

In operation the smoke extractor is placed at the most accessible side of the building, the intake tube inserted and the fan started in operation. The men then enter from the other side and get at the source of the fire. The machine is even of greater value when poisonous fumes are present.

The Ringer Smoke Ejector Operating at a Fire

In addition to freeing a building from large amounts of smoke and gas, the ejector creates a downward draft and simplifies some of the problems in fighting fires.

CONVENTION DATES

March 9-11, 1931—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. 4th Annual Convention, Dallas, Tex. Secretary, Chief J. E. Taplin, Fire Department, Blackwell, Okla.

May 11-16, 1931—NATIONAL FIRE PROTECTION ASSOCIATION. 35th Annual Meeting, Toronto, Ont., Can. Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

May 21, 1931—IOWA STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Ames, Iowa. Secretary-Treasurer, Chief L. R. Morris, Ames, Ia.

June 17-20, 1931—WASHINGTON STATE FIREMEN'S ASSOCIATION. 9th Annual Convention, Port Angeles, Wash. Secretary, S. H. Jenkins, Bellingham, Wash.

June 23-26, 1931—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 9th Annual Convention, Boston, Mass. Secretary, Chief John W. O'Hearn, 99 Main Street, Watertown, Mass.

July 13-16, 1931—MONTANA STATE FIREMEN'S ASSOCIATION. 40th Annual Convention, and Firemen's Short Course, Bozeman, Mont. Secretary-Treasurer, D E. Moser, Bozeman.

Sept. 8-10, 1931—ILLINOIS FIREMEN'S ASSOCIATION. 44th Annual Convention, Murphysboro, Ill. Secretary, Assistant Chief Roy W. Alsip, Champaign, Ill. Exhibit information, Chief Albert Herring, Murphysboro. Also, 1st Annual Convention, Ladies' Auxiliary, of Illinois Firemen's Association. Secretary, Mrs. R. W. Alsip, Champaign.

Sept. 19-22, 1931—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 38th Annual Convention, Royal Hawaiian Hotel, Honolulu, T. H. Secretary, Jay W. Stevens, 1014 Merchants' Exchange Bldg., San Francisco, Cal.

The Courts Have Final Say

(*Continued from page* 1088)

"pledge orders" and pay for the equipment from the revenue. In upholding this contention this Court said:

"The fact that it may be useful or convenient to the corporation to buy this machinery and pay for it by pledge warrants will not authorize the conclusion that it has the implied power to do so because it is not absolutely necessary to attain the end sought, the statute providing that it may issue bonds and pay the same by taxation. It follows, therefore, that the contract entered into is void and of no effect. . . . To the end that we may not be misunderstood, we are not holding that a bond issue is the only method by which an improvement of this kind may be acquired or built."

Laws Regulating Purchases

Generally speaking, any reasonable city ordinance is valid and enforceable which requires the purchase of Fire Department equipment to be made from lowest bidders.

For instance, in Burt vs. Municipal Council of Taunton, 172 N. E. 230, it was disclosed that, by a valid and subsisting ordinance adopted by the municipal council, all committees of the municipal councils were forbidden to make purchases in an amount exceeding five hundred dollars without calling for sealed proposals after specified advertisement, and all contracts were required to be awarded to the lowest responsible bidder. In May an appropriation of $13,500 was made by a city for the purchase of a motor driven pumper for the Fire Department. On June 11, a majority of the council referred the purchase of the equipment to a committee with authority to purchase a motor pumper without regard to the amount of the bid or the type of the pumper.

Certain citizens filed suit to prevent the committee from purchasing the equipment. The higher Court held the order or ordinance valid, thereby holding the purchase of the equipment as above outlined void, saying:

"The order of the municipal council requiring all contracts in excess of $500 in amount to be let to the lowest responsible bidder was in force when the vote of June 11 was passed. . . . That order was within the competency of the municipal council. It was a measure calculated to regulate the exercise of the power to make contracts and the conduct of the executive and administrative business of the city. . . . Its purpose is to protect the financial interests of the city by preventing favoritism in awarding contracts and to put a limitation on the otherwise very broad powers of the city officers to bind the city by contract. Its tendency is to give full publicity to proposed city contracts, to establish genuine and open competition upon the same footing after proper advertisement, and to insure honest methods of letting contracts. . . . There was no attempt to conform to these provisions with respect to the order as to letting contracts. Statutes of a tenor similar to this order and designed to accomplish the same result have been rigidly enforced. . . . It follows that the simple vote of the municipal council of June 11, authorizing the committee to purchase the motor pumper without regard to the bids received or the type of motor, was invalid."

Only Taxpayer May Sue to Prevent Municipal Expenditures

Of course, if a person has no direct interest in the money being expended by a municipality he has no legal right to file suit to prevent expenditures for public improvements or the purchase of equipment. So held the higher Court in Christensen vs. Town of Kimballton, 231 N. W. 502.

In this case it was disclosed that a manufacturer entered into a contract with a municipality whereby the former was to furnish the town an engine and equipment to be paid for by means of "pledge orders," which were not to be the general obligations of the town, but were to be payable only from the revenue of the plant of which the engine was to form a part.

A person filed suit to prevent the purchase on the grounds that by the contract the town promises to pay out its funds illegally, and that irreparable injury will be done to other taxpayers unless the manufacturer is restrained from installing the machinery.

However, in view of the fact that the person who filed the suit was not proven to be a property owner, the Court refused to render a decision, saying:

"We find no evidence that plaintiff is a resident or a taxpayer of the defendant town or the owner of real estate therein, or that he will be in any wise affected by the performance of the alleged illegal contract."

Purpose of Restrictive Laws

The purpose of these legislative enactments and of other provisions of the same general nature is to narrow and limit the powers of public officials in making contracts.

For example, in Dyer vs. City of Boston, 172 N. E. 235, it was disclosed that a city entered into a contract with a contractor whereby the latter was to furnish all materials and perform all the work necessary for and incident to the construction of a boiler plant for $85,872, subject to additions and deductions in accordance with the terms of the contract. Later it was discovered that additional work must be performed by the contractor and that the cost thereof would exceed the valid appropriations.

The state law prohibits the officers and boards of the city, authorized to make contracts, from making any expenditures or incurring any liability for any purpose beyond the appropriation duly made therefor. Notwithstanding this law the officials authorized the contractor to perform the extra work. The contractor proceeded to do so and when controversy developed over payment the contractor refused to complete the job. The city employed another contractor to finish the work and the original contractor sued to recover payment for the extras. The Court refused to authorize payment, saying:

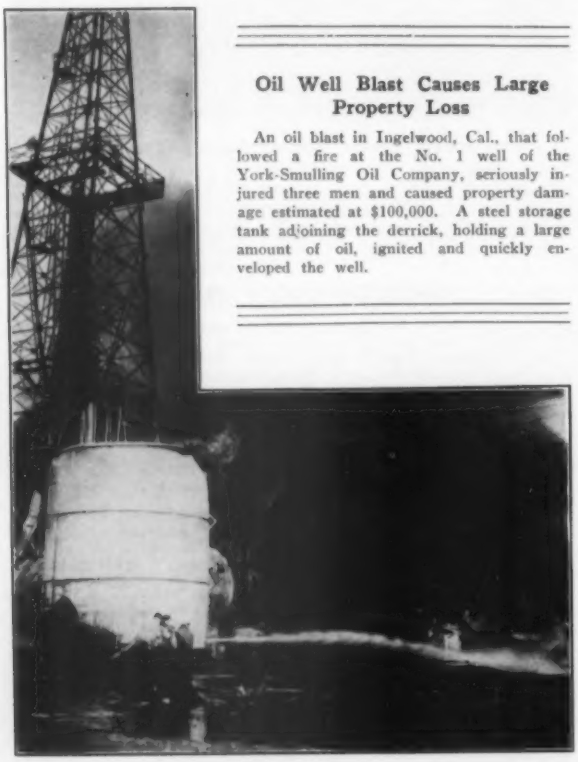
"The officials had no authority to contract for any expenditure in excess of the appropriation even though such expenditure might be found to be reasonably necessary in building the structure for which the money was appropriated. Contracts made for an expenditure in excess of the appropriation cannot bind the municipality. . . . The contractor was bound to take notice of this limitation of authority and to make his contracts with reference thereto. . . . The acceptance and use of the building by the city do not bind it to pay for extra or unauthorized work done upon it."

Liability of Municipality for Acts of Officers

Ordinarily, it is necessary, in order to make a municipal corporation liable for the wrongful acts or negligence of an official, that it be shown that he was a city official either generally or as respects the particular wrong complained of and not an independent public officer, and also that the wrong was done by such officer while in the legitimate exercise of some duty of a corporate nature which was devolved on him by law or by the direction or authority of the corporation.

For example, in Humphrey vs. Portland, 154 P. 897, it was disclosed that a city ordinance prescribes that the superintendent of streets shall burn uncut grass, unless the owner of the land burns the same in accordance with the further provisions of the ordinance.

Without conforming with the ordinance a fireman, who was sent with a permit to burn grass, set fire to the same. The fire spread to an adjoining building and destroyed it.



Oil Well Blast Causes Large Property Loss

An oil blast in Ingelwood, Cal., that followed a fire at the No. 1 well of the York-Smulling Oil Company, seriously injured three men and caused property damage estimated at $100,000. A steel storage tank adjoining the derrick, holding a large amount of oil, ignited and quickly enveloped the well.

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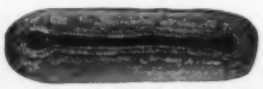

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A WORD TO OUR ADVERTISERS

Will you co-operate with us in our effort to keep the advertising pages of FIRE ENGINEERING just as live and interesting as the editorial pages? Send us new photographs and copy material, news matter, etc., for your advertising space just as often as possible.

Remember that you are not getting full value from your advertising unless you make it interesting, or give us the opportunity to do it for you. Think it over—and send us some new material.

THE PUBLISHERS.

The owner sued the city, but the higher Court held the city not liable, saying:

"The record clearly discloses that the fireman who started the fire was sent to the place of fire in his capacity as a fireman with a permit to the owner of adjoining premises to burn the grass on her premises. There is no evidence at all that any attempt was made by the superintendent of streets to burn the grass in accordance with the ordinance. The question of the liability of the city for any neglect exercised by the superintendent of streets, when acting under the ordinance, is not presented. The city is no more liable for the act of the fireman in starting the fire without authority than it would be if a transient or some children had started the fire . . . because his act was entirely unauthorized and no attempt was made by him or any other officer of the city to comply with the ordinance directing the burning to be done by the superintendent of streets. . . . The fireman personally might be liable for his unauthorized act, but the city cannot be held liable under the circumstances of the facts disclosed by this proceeding."

Fire Marshal Has Broad Authority to Revoke Building Permits

It is important to know that fire marshals, or other officials, authorized by valid laws to grant and refuse permits for the construction of buildings, are not required to base their decisions upon fire hazards. An example of the broad authority capable of being delegated to fire marshals in the granting of building permits is supplied by the records of the recent case of Hanauer vs. State Fire Marshal, 171 N. E. 428.

In this case it was shown that section thirty of a state law gives authority to the State Fire Marshal to license the sale and storage of gasoline within the metropolitan districts. This law was amended, as follows:

"The marshal may delegate the granting and issuing of any licenses or permits authorized by section thirty, or the carrying out of any lawful rule, order or regulation of the department, or any inspection required under said section, to the head of the fire department or to any other designated officer in any city or town in the metropolitan district."

In conformity with the amended law the State Fire Marshal delegated the right to license the manufacture, keeping or sale of gasoline to the board of street commissioners of the city. Sometime afterward a property owner filed a petition with the board of street commissioners for a permit to erect a public garage on his premises, and for a license to keep, store and sell four thousand gallons of gasoline on the property. The petition was granted by the board of street commissioners and the granting was duly approved by the public officials of the city. Adjoining property owners filed a petition requesting the Fire Marshal to revoke the permit.

After a personal survey of the site and surroundings, he was satisfied that the granting of the license would increase the danger to pedestrians on the adjacent street crossings, would slow up traffic at the connecting point of the streets opposite the site, increase the chances of collision between motor vehicles, be a detriment to the best interests of the property owners adjacent thereto, and against the welfare of the community. Therefore, the Fire Marshal revoked the permit granted by the Street Commissioners.

The property owner appealed to the higher Court for reversal of the Fire Marshal's decision on the contention that he exceeded his authority in revoking the permit for reasons other than fire hazard. It is interesting to observe that the higher Court upheld the Fire Marshal's decision, saying:

"The State Fire Marshal was empowered to revoke gasoline licenses if he found that their exercise would constitute a fire hazard or would increase an already existing fire hazard or if the exercise of such a license would constitute a nuisance. . . . The State Fire Marshal, under the broad powers conferred upon him as a licensing officer, had a right to revoke the license for the reasons stated in his 'decision,' supra, without regard to the question of fire hazard."

Down Town Boston Endangered

Fire in a factory engaged in the manufacture of celluloid umbrella handles spread rapidly and threatened the down town section of Boston on December 10. The Economy Umbrella Company at 96 Essex Street occupied the three upper floors of the 4-story stone building. Four alarms were turned in in rapid succession and only fast and efficient work by the Boston Fire Department kept the flames from buildings in the rear, separated from the burning structure by a very narrow blind alley. Slight damage was caused to two adjoining buildings and two to others across the alley in one of which two sprinkler heads operated.

The blaze was caused by a spark from an electric drill used in making holes in celluloid umbrella handles. When the handle flared up a workman dropped it on the floor where several sheets of celluloid ignited and the room was quickly a mass of flames. Several men working in the building had narrow escapes, but fortunately most of the employes were at dinner. Otherwise a loss of life would almost surely have resulted.

The first alarm was received at 12:55 p. m. and was followed by a third alarm at 12:59, the second alarm being skipped; and a fourth alarm at 1:01.

Flames spread with great rapidity involving the three upper floors and communicating to buildings in the rear. Engine Company No. 7 under command of Lieut. David A. Sheehan, the first apparatus to arrive, at once ran lines to the alley in the rear and spread a water curtain. A stream from a Morse gun on High Pressure Wagon No. 2 rendered effective service in front. Other lines were taken over ladders and through adjoining buildings.

The officers at the fire were Chief Henry A. Fox, Assistant Chief Henry J. Power, Acting Deputy Chief John Good, District Chiefs John A. Watson, Michael Minnehan, and Daniel J. Martel, and Acting District Chief E. B. Chittick. Among the spectators were Mayor James M. Curley and Fire Commissioner Edward F. McLoughlin.

The first alarm brought four engine companies, two ladder trucks, rescue company, water tower, and the Chiefs of District 5 and Division 1 to the scene. The third alarm summoning both 2nd and 3rd alarm assignments called 12 additional engine companies, three ladder trucks, another water tower, and the Chiefs of District 3 and 7. Five engine companies, one ladder company, and the Chief of District 8 responded on the 4th alarm. Chief Fox was in the vicinity and reached the scene just after sounding the 3rd alarm.

The department laid 6,950 feet of hose and raised 400 feet of ladders besides two 85-foot aerial ladders. The hose was 2½ and 3-inch cotton rubber lined. Nozzles ranged in size from 2-inch to 1⅛-inch. The pressure on the high pressure hydrants was 150 pounds.

Slight damage was caused to the rear of the buildings at 94 Essex Street and 100-106 Essex Street; to the 2nd, 3rd, 4th, 5th, and 6th floors of 67-69 Kingston Street; and to 71-77 Kingston Street. These structures were occupied by clothing manufacturers, wholesale stationery dealers, etc. and the flames were just entering in the rear when checked.

Chief Fox estimated the total damage at $60,000. The Boston Protective Department spread many covers on the lower floors to prevent water damage. A large crowd collected to watch the firemen at work. The blaze was brought under control within a half hour, the firemen taking severe punishment from the smoke and celluloid fumes.

HARRY BELKNAP.

Fire Cripples Telephone Service

The entire telephone service of Lima, Ohio, was crippled by a fire at the telephone headquarters caused by a contact spark in the first key bay, the main artery of the entire exchange. Fire was discovered after an automatic fire alarm wire in the network had sounded an indicator in the room where two night men were at work. Chemicals were used unsuccessfully to hold the fire. Flames spread to the second floor of the building and before they were extinguished, a loss estimated at $50,000 resulted.

During the time the service was impaired, residents were urged to use the fire alarm box for reporting fires.

Two Associations to Combine Meetings

In May the Rockland County Volunteer Firemen's Association (New York) will combine their meeting with the New Jersey and New York Volunteer Firemen's Association to be held in Nanuet, N. Y. Twelve members of the Rockland County Association at their meeting in December filed application for membership in the Eastern Association and the International Association of Fire Chiefs. Capt. Wm. Paul Babcock of Nyack, who was present, explained that the bulletin now being issued by the I. A. F. C., contains practical fire department lessons, of value to every fireman.

Apparatus Delivered to Denison, Tex.—An Ahrens-Fox pumper has been delivered to Denison, Tex.

Wheeling Delays Station Action—Wheeling, W. Va., has failed to award a contract for the construction of a new fire station in Edgewood section.

Volunteer Firemen to Have Hospital—All equipment has been purchased for the new memorial hospital of the Volunteer Firemen of New York State at Hudson, N. Y. The building is expected to be ready for occupancy some time this spring.

FALSE ALARMS

GREETINGS!

Several of the boys, meaning no harm of course, decided as they left the fire house that the evening was not sufficiently well under way to consider going home. They stepped into some place, whereabouts unknown, and had a few drinks. Then they went to the movies. During the show one shouted:

"Is there a doctor in the house?"

Everything went into immediate uproar. The show stopped dead. In the rear a man with a van dyke arose and said:

"I, sir, am a doctor."

The drunk, waving a limp hand at the beard, cried happily:

"Harya, Doc?"

If writers and artists starve in attics, it's their own fault.

Real inspiration is found in cellars.

THE WAY OUT

While some firemen are first class fire fighters and smokeeaters, they are very poor cooks. When the boys sat down to their noon-day meal, hoping that no alarm would come in, one of the more particular diners said:

"The potatoes are only half cooked."

The chef replied, "Then eat the half that's cooked."

These days when the stock market declines less than ten points in one day, the newspapers describe it as a rally.

---

50 YEARS AGO

The following amusing account of how fires were fought in the romantic days of fire department history appeared in the "Iron Age" of 1870:

"One of the water mains was shut by mistake. At least fifteen or twenty minutes of valuable time was lost in confusion. On the arrival of the Charter Oak Company, they took a double hydrant directly in front of the fire and forgot to attach their hose. Washington Engine Company came up and attached to the same hydrant, which was the cause of many hard words and loss of more time. The hose boys were inexperienced, and in stretching their hose, they pulled off one or two lengths, which was just enough not to reach the fire. While these matters and the incidental confusion were progressing, the fire gained an almost unobstructed advantage. The powerful steam pump of the company was started in good season, but the water being very low, the supply was entirely inadequate. The falling slate from the roof rendered it almost impossible to ascend the ladders and the combination of the above incidents, deficiencies and faults was sufficient to cause an almost hopeless confusion."

HE KNEW

After a trying day, not at the office, but answering box calls with the big red wagon, he opened the door of his cozy flat. His wife of a few months met him:

"I'm sorry, dear, but the dinner is a little burnt tonight."

"What? Did they have a fire at the delicatessen today?"

A fireman who inherited a million dollars says he will keep right on being a fireman. That is the way with some people. When they get their first million, they want another.

OVERSTEPPED

Bob ran into some bad luck. He lost his hold while working from the roof, and he fell, breaking a leg. But that was the least of his troubles. His big job was telling all his friends just how he happened to break his leg. After the twentieth time, the experience became very boring. When the next person inquired how he happened to have the accident, he replied:

"I threw a cigarette in a manhole and stepped on it."

AN OBJECTION

For the benefit of the unemployment fund, a noted football team had arranged to come to the city to play with the fire department team. The seats were nearly all filled, and the rival captains were inspecting the grounds before the game started.

"Don't like it," said the out-of-town visitor, shaking his head.

"What don't you like?' asked the home captain.

"The ground," replied the other. "Hardly a blade of grass to be seen."

The home officer was losing his patience. "Well, you didn't come here to graze, did yer?"

AESOP'S FABLES

Once a boy kicked a football into a house, breaking one window pane and one vase, and the man of the house came out laughing, saying:

"Tut, tut, tut, I was a boy myself once: here's your football."

The shopping crowds in New York are not noisy. There are so few New Yorkers who can carry on a conversation with their hands filled with bundles.

TELL TALE SIGNS

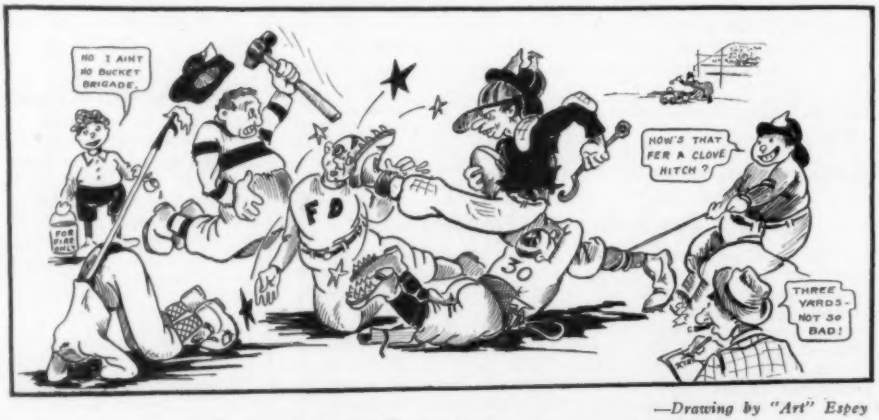
The chief was discussing shop with a neighboring chief from a large city. The chief asked his visitor:

"Tell me. You've had such success in selecting inspectors for your Fire Prevention Department, that I've often wondered what standard you use."

"Oh, that's easy," replied the visitor. "I follow three tell tale marks. I look at his thumb to see if it is calloused from bowling balls. Then I note his vest to see if it has any sign of the blue chalk used in pool rooms. Next I look in his eyes to see if they show signs of nervousness from too consciencious attendance at movies. If he does not show any of these marks he gets the job. The chances are that he'll put in a full day's work."

"What is the best thing to do when the brakes of one's car give way?" asks one reader. Hit something cheap.

And good South American boys are told that when they grow up they will all get a chance at the President.



—Drawing by "Art" Espey

Fire Department Football May Come to This—Who Knows?

Each year generally finds a change in rules of the great national game of football, and now that fire departments are developing formidable teams, even though not of collegiate rank, still other changes may be effected. If you don't agree with some of the suggestions blame the artist. We don't know the value of a spanner wrench in the game unless it is to counteract the action of the short handled persuader. A clove hitch properly made and placed can hold any ambitious attack. If the changes aren't for the best interest of the players, they will at least furnish more entertainment for the holders of $20 seats. Further suggestions will appear in the next issue.

YOUR CATALOG PAGE

Fire Protection Equipment and Supplies

1 Acid Siphons.
2 Adaptors for Changing Hydrant Threads.
3 Acid Jars and Rings.
4 Aerial Ladders, Detachable.
5 Aerial Trucks.
6 Alarms, Siren, Electric.
7 Alarm Systems, Industrial.
8 Alarm Systems, Municipal Telegraphic.
9 Alarms, Thermostatic.
10 Asbestos Clothing.
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars.
14 Battery Zincs for Fire Alarm Batteries.
15 Bells, Fire Alarm, Municipal
16 Body Equipments.
17 Boxes, Gongs, Reels, Registers, Fire Alarm.
18 Brakes, Air.
19 Brake Linings.
20 Brooms, Fire.
21 Building Materials, Fire Retardant.
22 Caps, Firemen's.
23 Chains, Non-Skid Fire Apparatus.
24 Chassis for Fire Apparatus.
25 Chemical Engines and Tanks.
26 Chimney Cleaning Compounds.
27 City Service Trucks.
28 Coats & Suits, Firemen's Quick Hitch.
29 Combination Chemical & Hose Cars.
30 Cutting & Welding Equipment Blow Torch.
31 Cutting & Welding Equipment, Electric.
32 Deluge Sets.
33 Door Openers, Fire Station, Automatic.
34 Extinguishers, Calcium Chloride.
35 Extinguishers, Carbon Dioxide.
36 Extinguishers, Soda-Acid.
37 Extinguishers, Carbon Tetrachloride.
38 Extinguishers, Foam.
39 Extinguishers, Powder.
40 Fire Boat Nozzle Equipment.
41 Fire Department Supplies, General.
42 Fire Exit Devices, Door Opening.
43 Fire Alarm Posts.
44 Fire Escapes, Portable.
45 Fire Escapes, Rigid.
46 First Aid Equipment.
47 Flare Lights.
48 Flashlights, Hand.
49 Foam Liquid for Extinguishers.
50 Gas Masks and Respirators.
51 Gas & Smoke Helmets.
52 Gasoline & Oil Handling Equipment.
53 Goggles, Firemen's.
54 Helmets, Metal, etc.
55 Hose Carts, Reels & Racks.
56 Hose Clamps.
57 Hose, Fire.
58 Hose, Chemical.
59 Hose Holders.
60 Hose Jackets.
61 Hose Standardization Tools.
62 Hydrant Draining Pumps.
63 Hydrants, Fire.
64 Jacks for Fire Trucks.
65 Jacks, Shoring & Prying.
66 Ladders, Fire.
67 Lightning Arresters.
68 Motorcycles, Fire Dept. Equipped
69 Nets, Life.
70 Nozzles, Pipes & Misc. Brass Goods.
71 Packings, Pumps.
72 Pads, Pole Hole.
73 Paints, Fire Resisting.
74 Priming Ether, Motor.
75 Pumping Cars, Standard.
76 Pumping Cars, Foam.
77 Pumps, Fire Apparatus.
78 Pumps, Fire Service, Stationary.
79 Pumps, Portable for Fire Protection.
80 Record Books, Fire.
81 Relief Valves.
82 Reviving Apparatus, Oxygen.
83 Rubber Clothing
84 Salvage Covers.
85 Searchlights.
86 Shingles, Fire Retardant.
87 Shirts, Firemen's Special.
88 Sirens, Apparatus & Chiefs' Cars.
89 Sliding Poles.
90 Soda & Acid Chemicals.
91 Spark Plugs, Fire Apparatus & Motorcycles.
92 Squad and other Auxiliary Cars.
93 Sprinkler Head Shut-Offs.
94 Sprinkler Supervisory Service.
95 Sprinkler Systems, Automatic, Foam.
96 Sprinkler Systems, Automatic, Water.
97 Steam Fire Engines.
98 Tarpaulins & Fire Blankets.
99 Tetrachloride Chemicals.
100 Thawing Equipment, Hydrant.
101 Tires, Fire Apparatus, Pneumatic Solid, Cushion and Non-Skid.
102 Tractors.
103 Traffic Clearing Systems.
104 Triple Combination Pumping Cars.
105 Uniforms.
106 Water Towers.
107 Wheels, Cushion.
108 Whistles, Fire Alarm, Compressed Air
109 Whistles, Fire Alarm, Steam.
110 Whistles, Fire Apparatus.
111 Wrecking Trucks.

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For Information on Any Equipment Not Listed, Write on This Page or Use Separate Sheet 12-24

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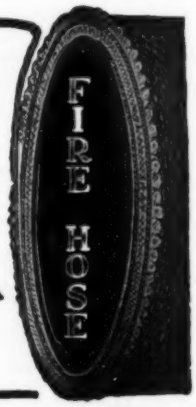

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Nov. 16, 1929

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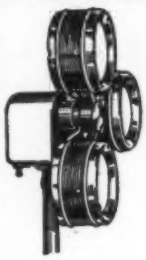

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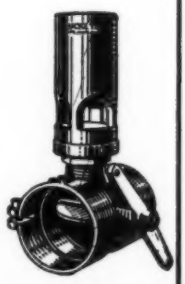

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Because No Water Can Reach It

THE shield nut protects the revolving nut against rain, snow, sleet or stream spray. The location of the stuffing box prevents water from climbing up around the operating thread when the hydrant is open. Therefore, no ice can form to interfere with easy and positive opening and closing. Automatic draining keeps water from freezing in the barrel after the hydrant has been closed. For these and other reasons, Mathews Hydrants are preferred in Cold Climates. Ask the men who use them.

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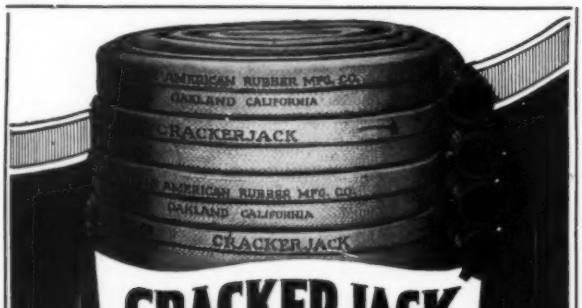

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